MOOG

Installation and Operation Instructions

Before attempting to connect or operate this product, please read these instructions completely.

EXO Corrosion Resistant HD Camera

High Definition Network Camera Systems for Harsh Environments

EXSS7C2-2 Stainless Steel 1080P HD PTZ camera system, 20x optic zoom, H.264 support, ONVIF, extended temperature range, surge protection

EXSS7C2-3 Stainless Steel 1080P HD PTZ camera system, 30x optic zoom, H.264 support, ONVIF, extended temperature range, surge protection

EXSP7C2-2 Stainless Steel Pressurized 1080P HD PTZ camera system, 20x optic zoom, H.264 support, ONVIF, extended temperature range, surge protection

81-IN5513 06/24/13

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Moog Inc. • Sensor and Surveillance Systems • 2525 Park Central Boulevard, Decatur, GA 30035 USA • +1 770.987.7550 • www.moogS3.com

IMPORTANT SAFEGUARDS

1 Read these instructions.

2 Keep these instructions.

3 Heed all warnings

4 Follow all instructions.

5 Do not use this apparatus near water.

6 Clean only with damp cloth.

7 Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.

8 Cable Runs- All cable runs must be within permissible distance.

9 Mounting - This unit must be properly and securely mounted to a supporting structure capable of sustaining the weight of the unit.

Accordingly:

a. This installation should be made by a qualified service person and should conform to all local codes.

b. Care should be exercised to select suitable hardware to install the unit, taking into account both the composition of the mounting surface and the weight of the unit.

10 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

11 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

12 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

13 Only use attachment/ accessories specified by the manufacturer.

14 Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

15 Unplug this apparatus during lighting storms or when unused for long periods of time.

16 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled of objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Be sure to periodically examine the unit and the supporting structure to make sure that the integrity of the installation is intact. Failure to comply with the foregoing could result in the unit separating from the support structure and falling, with resultant damages or injury to anyone or anything struck by the falling unit.

UNPACKING

Unpack carefully. Electronic components can be damaged if improperly handled or dropped. If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper.

Be sure to save:

1 The shipping carton and packaging material. They are the safest material in which to make future shipments of the equipment.

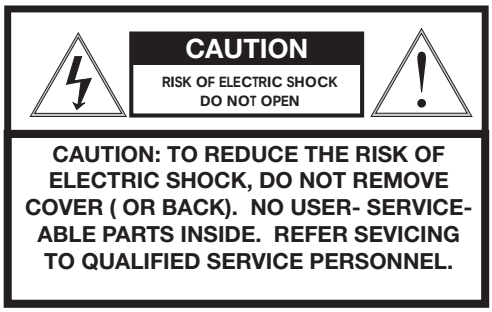
2 These Installation and Operating Instructions.

SERVICE

If technical support or service is needed, contact us at the following number:

TECHNICAL SUPPORT
AVAILABLE 24 HOURS
1 - 800 - 554 -1124

SAFETY PRECAUTIONS


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER- SERVICE-ABLE PARTS INSIDE. REFER SEVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of non-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk to persons.

Este símbolo se piensa para alertar al usuario a la presencia del “voltaje peligroso no-aislado” dentro del recinto de los productos que puede ser un riesgo de choque eléctrico.

Ce symbole est prévu pour alerter l’utilisateur à la presence “de la tension dangereuse” non-isolée dans la clôture de produits qui peut être un risque de choc électrique.

Dieses Symbol soll den Benutzer zum Vorhandensein der nicht-Isolier “Gefährdungsspannung” innerhalb der Produkteinschließung alarmieren die eine Gefahr des elektrischen Schlages sein kann.

Este símbolo é pretendido alertar o usuário à presença “di tensão perigosa non-isolada” dentro do cerco dos produtos que pode ser um risco de choque elétrico.

Questo simbolo è inteso per avvertire l’utente alla presenza “di tensione pericolosa” non-isolata all’interno della recinzione dei prodotti che può essere un rischio di scossa elettrica.

The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Este símbolo del punto del exclamation se piensa para alertar al usuario a la presencia de instrucciones importantes en la literatura que acompaña la aplicación.

Ce symbole de point d’exclamation est prévu pour alerter l’utilisateur à la presence des instructions importantes dans la littérature accompagnant l’appareil.

Dieses Ausruf Punktsymbol soll den Benutzer zum Vorhandensein de wichtigen Anweisungen in der Literatur alarmieren, die das Gerät begleitet.

Este símbolo do ponto do exclamation é pretendido alertar o usuário à presença de instruções importantes na literatura que acompanha o dispositivo.

Questo simbolo del punto del exclamaton è inteso per avvertire l’utente alla presenza delle istruzioni importanti nella letteratura che accompagna l'apparecchio.

MADE IN USA
BUY AMERICA COMPLIANT • COUNTRY OF ORIGIN U.S.A.

Limited Warranty for Moog Products

Moog - Decatur Operations, subsequently referred to as "Manufacturer," warrants these products to be free from defects in material or workmanship as follows:

PRODUCT CATEGORY	PARTS \ LABOR
All Enclosures and Electronics*	Five (5) Years
Accessory Brackets	Five (5) Years
Controllers	Three (3) Years
Power Supplies / IR Illuminators	Three (3) Years
Poles / PolEvators™ / CamEvator	Three (3) Years
Warrior Series™ / Q-View™	Three (3) Years
SView Series™	Three (3) Years **6 months if used in auto scan/tour operation
DeputyDome™, NiteTrac™, Igloo Dome, PurgeDome™	Three (3) Years **6 months if used in auto scan/tour operation
EXO Series™ Dome and Fixed Camera Systems	Three (3) Years **6 months if used in auto scan/tour operation

During the labor warranty period, to repair the Product, Purchaser will either return the defective product, freight prepaid, or deliver it to Manufacturer at Moog, Decatur Operations, 2525 Park Central Boulevard, Decatur, Georgia, 30092. The Product to be repaired is to be returned in either its original carton or a similar package affording an equal degree of protection with a RMA # (Return Materials Authorization number) displayed on the outer box or packing slip. To obtain a RMA# you must contact our Technical Support Team at 800.554.1124, extension 101. Manufacturer will return the repaired product freight prepaid to Purchaser. Manufacturer is not obligated to provide Purchaser with a substitute unit during the warranty period or at any time. After the applicable warranty period, Purchaser must pay all labor and/or parts charges. The limited warranty stated in these product instructions is subject to all of the following terms and conditions.

TERMS AND CONDITIONS

1. NOTIFICATION OF CLAIMS: WARRANTY SERVICE: If Purchaser believes that the Product is defective in material or workmanship, then written notice with an explanation of the claim shall be given promptly by Purchaser to Manufacturer. All claims for warranty service must be made within the warranty period. If after investigation, Manufacturer determines the reported problem was not covered by the warranty, Purchaser shall pay Manufacturer for the cost of investigating the problem at its then prevailing per incident billable rate. No repair or replacement of any Product or part thereof shall extend the warranty period of the entire Product. The specific warranty on the repaired part only shall be in effect for a period of ninety (90) days following the repair or replacement of that part or the remaining period of the Product parts warranty, whichever is greater.

2. EXCLUSIVE REMEDY: ACCEPTANCE: Purchaser's exclusive remedy and Manufacturer's sole obligation is to supply (or pay for) all labor necessary to repair any Product found to be defective within the warranty period and to supply, at no extra charge, new or rebuilt replacements for defective parts.

3. EXCEPTIONS TO LIMITED WARRANTY: Manufacturer shall have no liability or obligation to Purchaser with respect to any Product requiring service during the warranty period which is subjected to any of the following: abuse, improper use, negligence, accident, lightning damage or other acts of God (i.e., hurricanes, earthquakes), modification, failure of the end-user to follow the directions outlined in the product instructions, failure of the end-user to follow the maintenance procedures recommended by the International Security Industry Organization, written in product instructions, or recommended in the service manual for the Product. Furthermore, Manufacturer shall have no liability where a schedule is specified for regular replacement or maintenance or cleaning of certain parts (based on usage) and the end-user has failed to follow such schedule; attempted repair by non-qualified personnel; operation of the Product outside of the published environmental and electrical parameters, or if such Product's original identification (trademark, serial number) markings have been defaced, altered, or removed. Manufacturer excludes from warranty coverage Products sold AS IS and/or WITH ALL FAULTS and excludes used Products which have not been sold by Manufacturer to the Purchaser. All software and accompanying documentation furnished with, or as part of the Product is furnished "AS IS" (i.e., without any warranty of any kind), except where expressly provided otherwise in any documentation or license agreement furnished with the Product. ANY COST ASSOCIATED WITH REMOVAL OF DEFECTIVE PRODUCT AND INSTALLATION OF REPLACEMENT PRODUCT IS NOT INCLUDED IN THIS WARRANTY.

4. PROOF OF PURCHASE: The Purchaser's dated bill of sale must be retained as evidence of the date of purchase and to establish warranty eligibility.

DISCLAIMER OF WARRANTY

EXCEPT FOR THE FOREGOING WARRANTIES, MANUFACTURER HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY AND/OR ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY WARRANTY WITH REGARD TO ANY CLAIM OF INFRINGEMENT THAT MAY BE PROVIDED IN SECTION 2-312(3) OF THE UNIFORM COMMERCIAL CODE AND/OR IN ANY OTHER COMPARABLE STATE STATUTE. MANUFACTURER HEREBY DISCLAIMS ANY REPRESENTATIONS OR WARRANTY THAT THE PRODUCT IS COMPATIBLE WITH ANY COMBINATION OF NON-MANUFACTURER PRODUCTS OR NON-MANUFACTURER RECOMMENDED PRODUCTS PURCHASER MAY CHOOSE TO CONNECT TO THE PRODUCT.

LIMITATION OF LIABILITY

THE LIABILITY OF Manufacturer, IF ANY, AND PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DAMAGES FOR ANY CLAIM OF ANY KIND WHATSOEVER, REGARDLESS OF THE LEGAL THEORY AND WHETHER ARISING IN TORT OR CONTRACT, SHALL NOT BE GREATER THAN THE ACTUAL PURCHASE PRICE OF THE PRODUCT WITH RESPECT TO WHICH SUCH CLAIM IS MADE. IN NO EVENT SHALL MANUFACTURER BE LIABLE TO PURCHASER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION, REPLACEMENT LABOR COSTS, REIMBURSEMENT, OR DAMAGES ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS OR FOR ANY OTHER REASON WHATSOEVER.

Electrical Specifications

Power 24VAC
Class 2 Only

EXPF7
EXSS7
EXSP7
EXRHW(P)7

English

24 VAC
3.2 Amps
Total Power: 75 Watts
Tools Required: .100" Flat Head Screwdriver
Phillips Head Screwdriver
7/16" Wrench or Socket

Español

24 VAC
3.2 amperios
Energía Total: 75 vatios
Las Herramientas Requirieron: Destornillador Principal Plano Del 100"
Destornillador Principal Phillips

Français

24 VCA
3.2 ampères
Puissance Totale : 75 watts
Les Outils besoin : Tournevis Principal Plat De 100"
Tournevis Principal Phillips

Deutsch

24 VAC
3.2 Ampere
Gesamtenergie: 75 Watt
Werkzeuge Erforderten: 100"Flacher Hauptschraubenzieher
Kreuzkopfhauptschraubenzieher

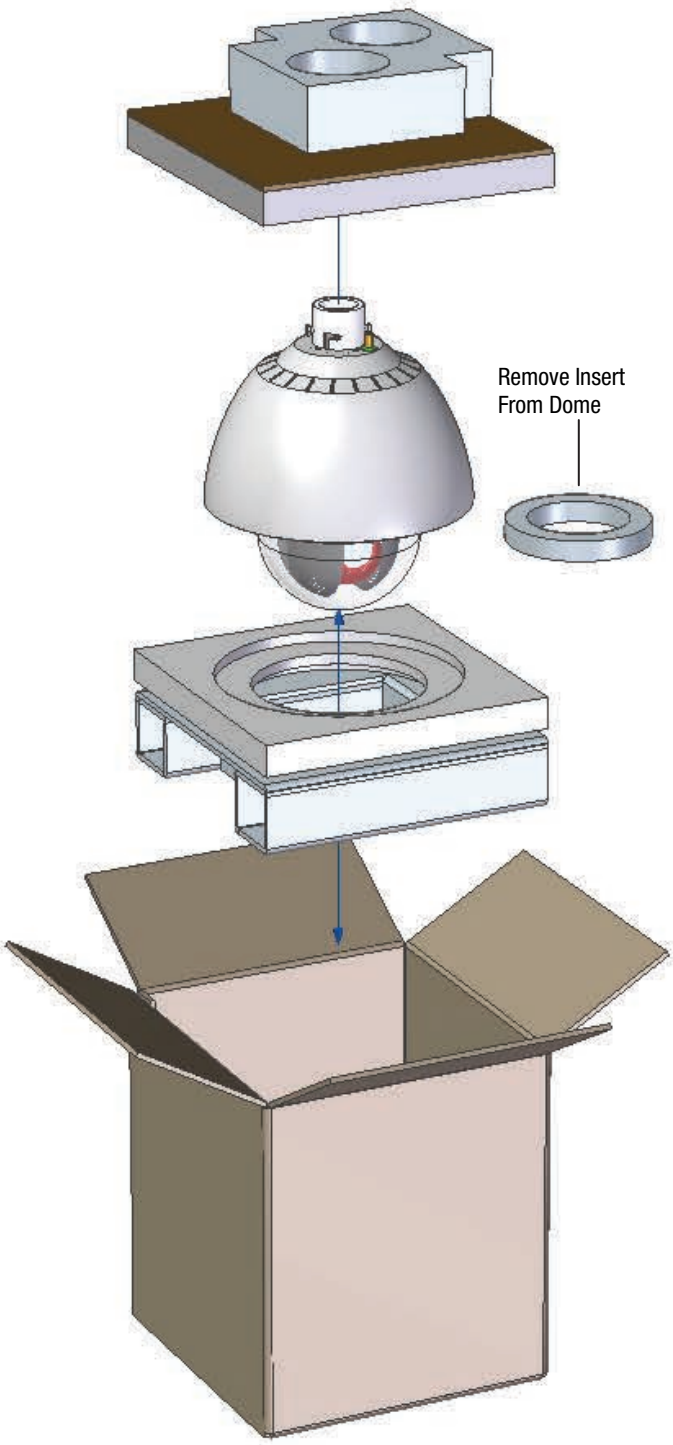
Portuguese

24 VAC
3.2 ampères
Poder Total: 75 watts
As Ferramentas Requereram: Chave de fenda Principal Lisa Do 100"
Chave de fenda Principal Phillips

Italiano

24 VAC
3.2 ampère
Alimentazione Totale: 75 watt
Attrezzi Richiesti: Cacciavite Capo Piano Del 100"
Cacciavite Capo "phillips"

Contents of Box



Product Warranty Registration

Register Your Products Online

www.moogS3.com/technical-support/product-registration

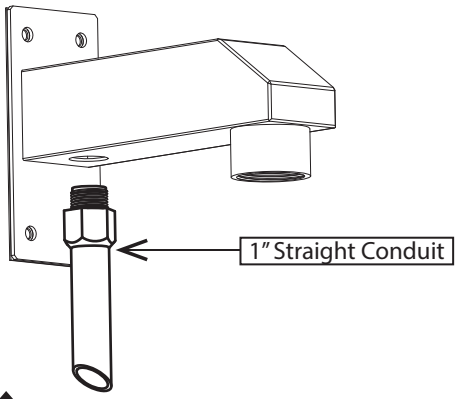
Moog values your patronage. We are solely committed to providing you with the highest quality products and superior customer service. With 3-Year and 5-Year warranties (depending on the product purchased) we stand behind every product we sell.

See full warranty details at **www.moogS3.com/technical-support/warranty-plan/**

Register your products today to receive the following benefits:

- Simple and Trouble-Free RMA process
- Product / software updates
- Special promotions
- Eliminate the need to archive purchase documents such as receipts, purchase orders, etc.

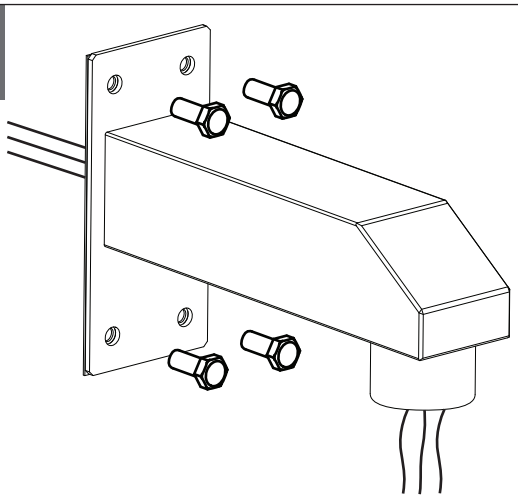
1



Wall mount bracket is designed for straight conduit. If this fitting is desired, install it first. Otherwise, use the thru mount wiring provision.

- Soporte de pared está diseñado para conducción recta. Si se desea este ajuste, se debe instalar primero. De lo contrario, utilice el suministro de cableado de montaje a través.
- Support mural est conçu pour les conduit tout droit. Si cette mise en place est souhaitée, d'abord l'installer. Sinon, utilisez la mise à disposition de câblage montage par.
- Wandhalterung ist für gerade Leitung entworfen. Wenn diese Montage gewünscht wird, installieren Sie es zuerst. Andernfalls verwenden Sie den Mount-thru Verdrahtung Bestimmung.
- Suporte de parede é projetado para canal em linha reta. Se esse ajuste for desejada, instalá-lo primeiro. Caso contrário, use o fornecimento de fiação através de montagem.
- Staffa di montaggio a parete è progettato per tubo dritto. Se si desidera questa fitting, installare prima. In caso contrario, utilizzare la fornitura di cablaggio attraverso mount.

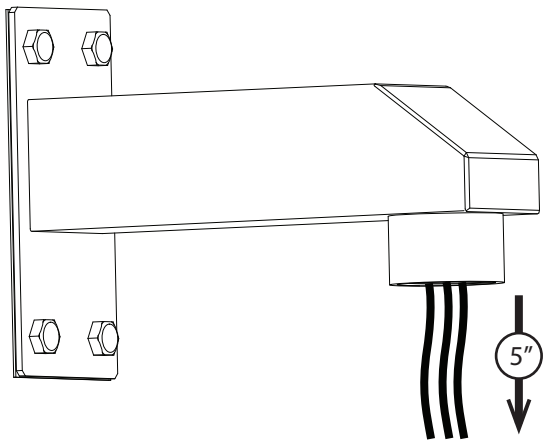
2



Run connection wires through mount and attach to wall with suitable mounting hardware.

- Funcione con los alambres de la conexión a través del montaje y átelos a la pared con hardware de montaje conveniente.
- Courez les fils de raccordement par le bâti et les attachez au mur avec le matériel de support approprié.
- Lassen Sie Anschlussdrähte durch Einfassung laufen und bringen Sie zur Wand mit verwendbarer Montage-Hardware an.
- Funcione fios da conexão através da montagem e una-os à parede com ferragem de montagem apropriada.
- Faccia funzionare i legare del collegamento tramite il supporto ed attacchi alla parete con i fissaggi di montaggio adatti.

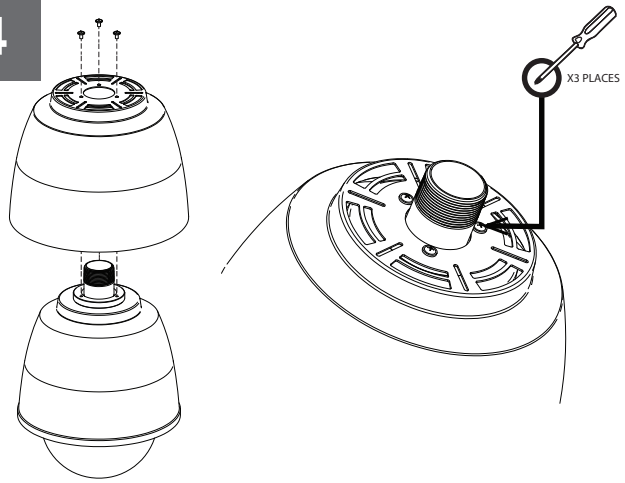
3



Trim wires no longer than 5" outside mount.

- Alambres del ajuste no más que" montaje del exterior 5.
- Fils d'équilibre plus que » bâti de l'extérieur 5.
- Ordnungsdrähte nicht mehr als" Einfassung der Außenseite 5.
- Fios da guarnição já não do que da" montagem parte externa 5.
- Legare della disposizione più che„ supporto della parte esterna 5.

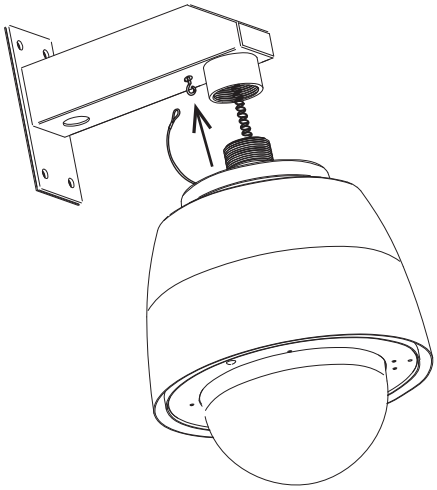
4



If required, install provided sunshield with phillips screwdriver.

- Si procede, instale el sunshield proporcionado con destornillador Phillips.
- S'il y a lieu, installez le sunshield fourni avec le tournevis Phillips.
- Wenn erforderlich bringen Sie zur Verfügung gestelltes sunshield mit Kreuzkopfschraubenzieher an.
- Se requerido, instale o sunshield fornecido com chave de fenda Phillips.
- A richiesta, installi il sunshield fornito con il cacciavite "phillips".

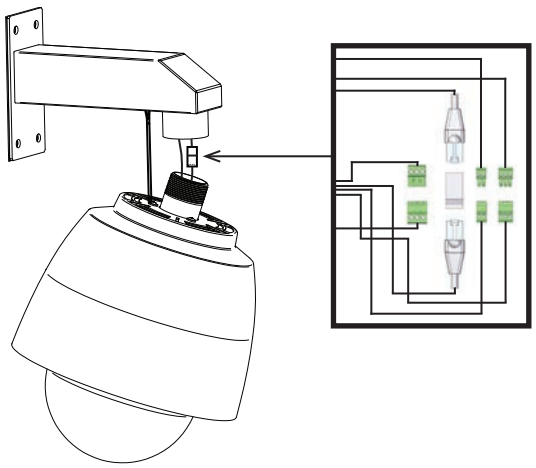
5



Secure lanyard from dome housing to clip on wall mount.

- Acollador seguro de la bóveda que contiene al clip en el montaje de la pared.
- Lanière bloquée du dôme logeant à l'agrafe sur le bâti de mur.
- Sichere Abzuglinie von der Haube, die zum Klipp auf Wandeinfassung unterbringt.
- Colhedor seguro da abóbada que abriga ao grampo na montagem da parede.
- Cordicella sicura dalla cupola che alloggia alla clip sul supporto della parete.

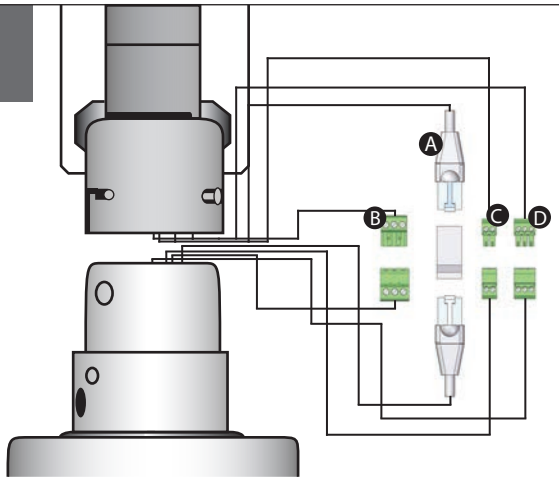
6



Complete all wiring connections.

- Termine todas las conexiones del cableado.
- Accomplissez tous les raccordements de câblage.
- Schließen Sie alle Verdrahtungsanschlüsse ab.
- Termine todas as conexões da fiação.
- Completi tutti i collegamenti dei collegamenti.

7



A

RJ45

B

24VAC			POWER
1	24Vac	Red	75 Watts
2	24Vac	Orange	
3	GND	Green/White	

C

AUDIO		
1	Speaker +	Gray
2	Audio GND	Brown
3	MIC +	White

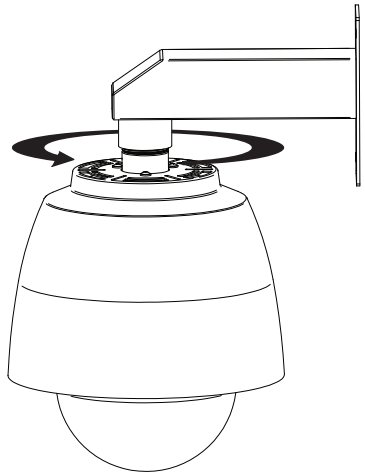
D

ALARM		
1	Alarm IN	Blue
2	GND	Violet

Make the appropriate male and female connections.

- Haga las conexiones masculinas y femeninas apropiadas.
- Établissez les rapports masculins et femelles appropriés.
- Stellen Sie die passenden männlichen und weiblichen Beziehungen her.
- Faça as conexões masculinas e fêmeas apropriadas.
- Faccia i collegamenti maschii e femminili adatti.

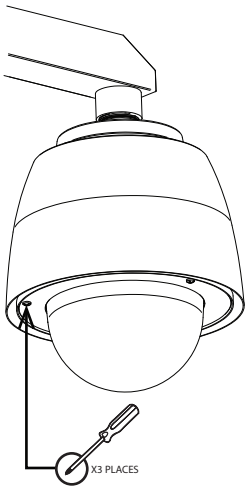
8



Engage the thread and rotate housing assembly clockwise into wall mount fitting until tight.

- Enganche el hilo y gire conjunto de la caja hacia la derecha en el accesorio de montaje en pared hasta que quede apretado.
- Engager le fil et tourner ensemble boîtier dans le sens horaire dans le raccord mural en serrant bien.
- Aktivieren Sie den Faden und drehen Gehäuse Baugruppe in Wandhalterung passend bis im Uhrzeigersinn fest.
- Envolver o fio e gire no sentido horário em conjunto da carcaça de montagem montagem na parede até apertado.
- Inserire il filo e ruotare in senso orario nel gruppo alloggiamento Lato montaggio a parete fino stretto.

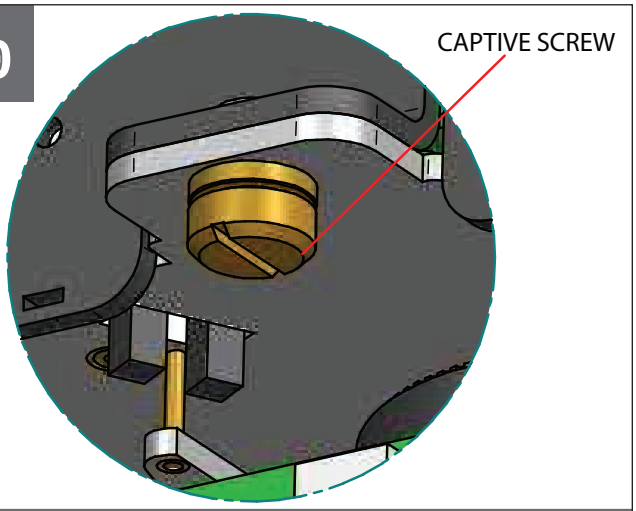
9



Fasten trim ring assembly to main housing with a phillips screwdriver.

- Sujete el montaje del anillo del ajuste a la cubierta principal con un destornillador Phillips.
- Attachez l'anneau d'équilibre au logement principal avec un tournevis Phillips.
- Befestigen Sie OrdnungsRing am Hauptgehäuse mit einem Kreuzkopfschraubenzieher.
- Prenda o conjunto do anel da guarnição à carcaça principal com uma chave de fenda Phillips.
- Fissi l'assemblea dell'anello della disposizione ad alloggiamento principale con un cacciavite "phillips".

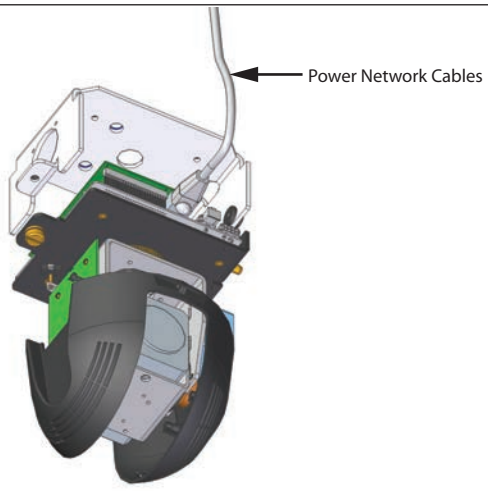
10



To remove, loosen captive screw.

- Para quitarlo, tornillo cautivo suelto.
- Pour l'enlever, vis captive lâche.
- Zum Entfernen loser unverlierbare Schraube.
- Para remover, parafuso solto.
- Per rimuovere, sciolto vite imperdibile.

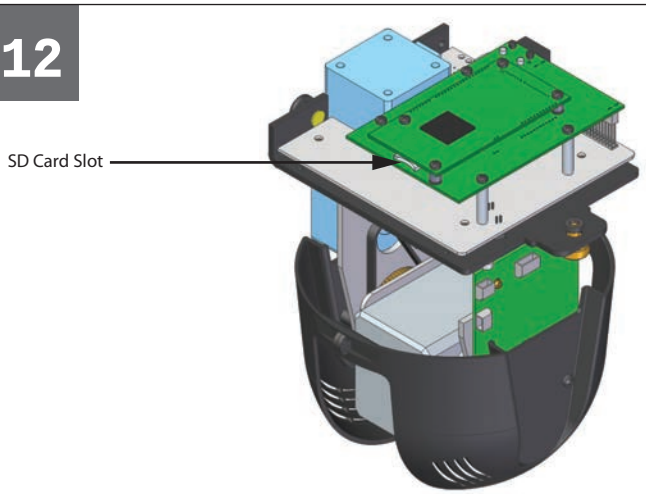
11



Disconnect cables, and remove Pan / Tilt from base bracket in housing.

- Desconecte los cables y retire la cacerola / de la inclinación del soporte de base en materia de vivienda.
- Débranchez les câbles, puis retirez Pan / Tilt de support de base en matière de logement.
- Ziehen Sie die Kabel, und entfernen Pan / Tilt aus Grundträger im Gehäuse.
- Desconecte os cabos e remover Pan / Tilt do suporte de base em habitação.
- Scollegare i cavi e rimuovere Pan / Tilt dalla staffa base in custodia.

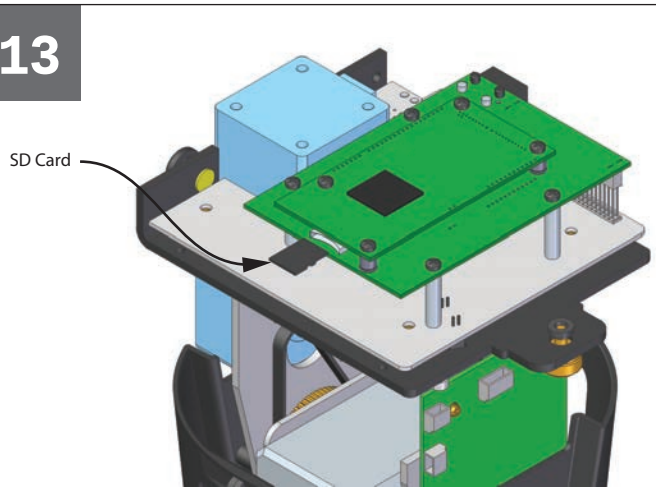
12



SD card slot is located at the base of Pan / Tilt unit.

- Ranura para tarjetas SD se encuentra en la base? De la unidad Pan / Tilt.
- Fente pour carte SD se trouve à la base? De l'unité de Pan / Tilt.
- SD-Kartensteckplatz an der Basis liegt der Pan / Tilt-Einheit.
- Slot para cartão SD está localizado na base? De Pan / Tilt unidade.
- Slot per scheda SD si trova alla base? Del Pan / Tilt unità.

13



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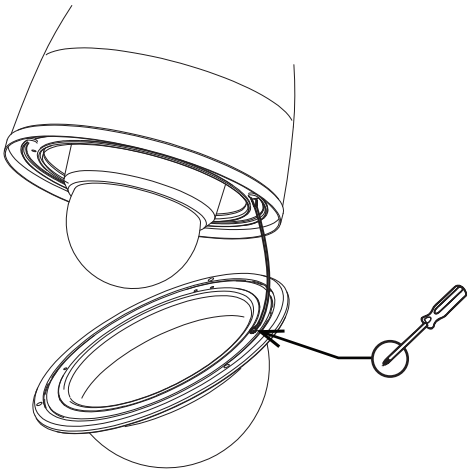
- Slot per scheda SD si trova alla base? Del Pan / Tilt unità.

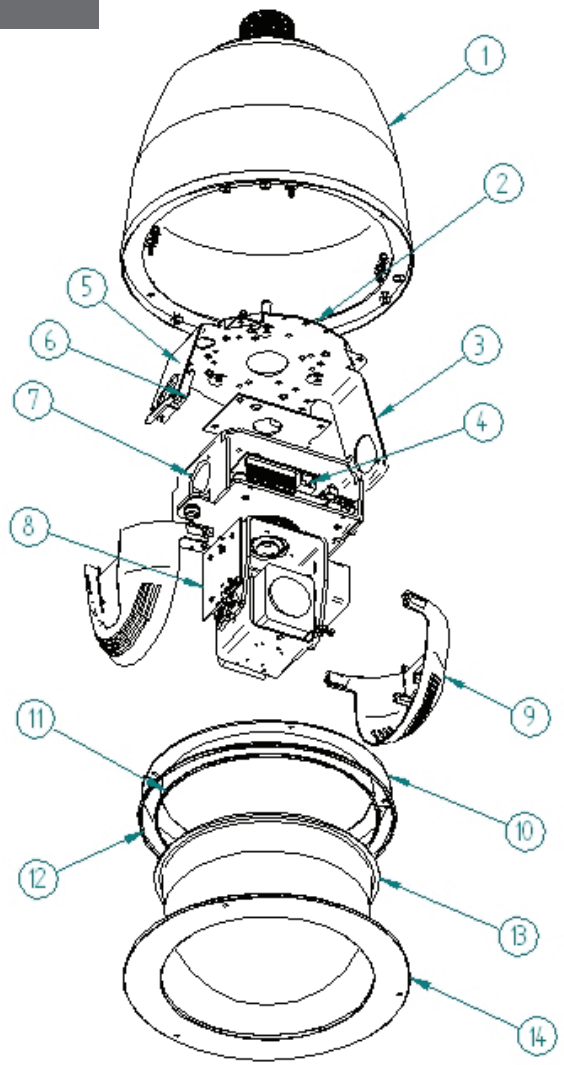
14



After Camera installation. Attach lanyard to the trim ring assembly.

- Después de la instalación de la cámara. Ate el acollador al montaje del anillo del ajuste.
- Après installation d'appareil-photo. Attachez la lanière à l'anneau d'équilibre.
- Nach Kamerainstallation. Bringen Sie Abzuglinie zum OrdnungsRing an.
- Após a instalação da câmera. Una o colhedor ao conjunto do anel da guarnição.
- Dopo l'installazione della macchina fotografica. Attacchi la cordicella all'assemblea dell'anello della disposizione.

Replacement Parts List



	PART NUMBER	PRODUCT DISCRIPTION
1	RPVL4025	HOUSING
2	RP76VL2024	SURGE/CONNECTION PCB
3	RPVL3414	HGS BKT
4A	RP762030	PCB NETWORK DAUGHTER PCB
4B	RP76ENE100	PCB-NETWORK CARD PCB
5	RPFD072	HEATER 24VAC
6	RPFD080	BLOWER
7	RPVL4106	EXO BASE BKT
8	RP762021	TILT PCB
9	RPEX4281	LINER ASSEMBLY 2 PARTS
10	RPVL4028	CLAMPING RING(S)
11	RP96RSRG16	INNER O-RING 8"
12	RP96RS0RG23	OUTER O-RING 9"
13		CLEAR NYLON DOME
14	RPVL4024	STAINLESS LOWER TRIM RING
N/S	RPVL4029	SUNSHIELD

SOFTWARE SETUP

1.0.0 Moog Discovery Tool

By factory default, the Moog EXO Camera is configured in DHCP. If you are not using a DHCP server it will automatically allocate itself an APIPA (Automatic Private IP Addressing) address in the range 169.254.0.1 to 169.254.255.254 with subnet mask 255.255.0.0.

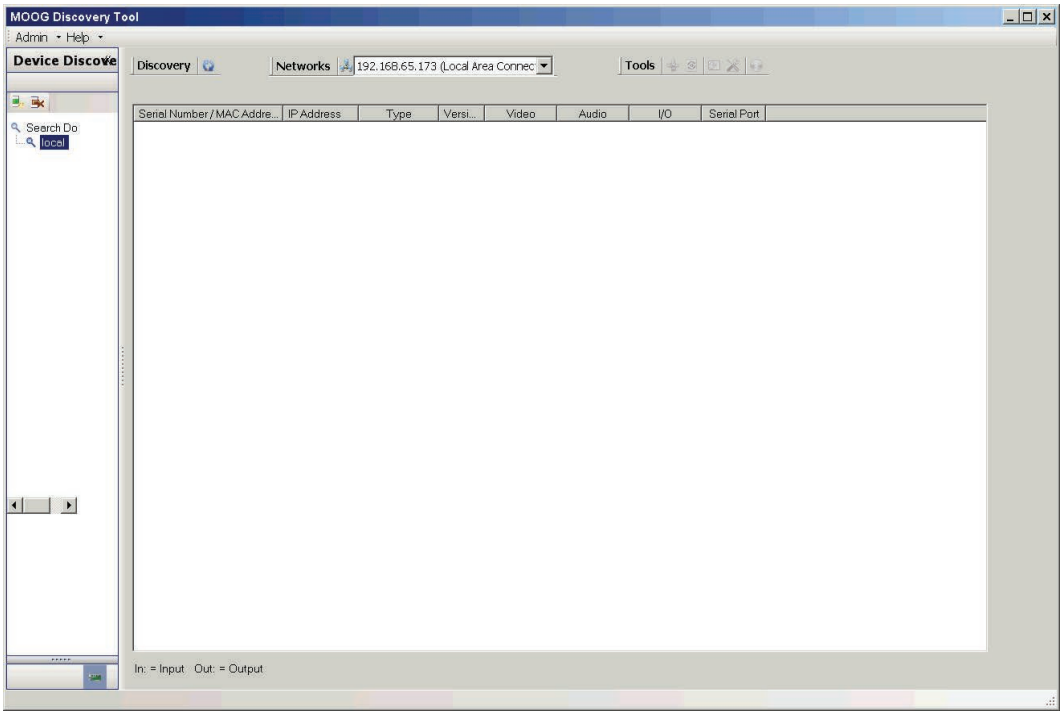
Initial device network configuration is done via the Moog Discovery Tool (MDT), a tool provided by Moog that can be found on the company's web site and on the flash drive supplied with each camera system. The flash drive also contains a copy of Microsoft Silverlight 5. Both programs should be installed on the your local server.

The MDT plays 3 important roles:

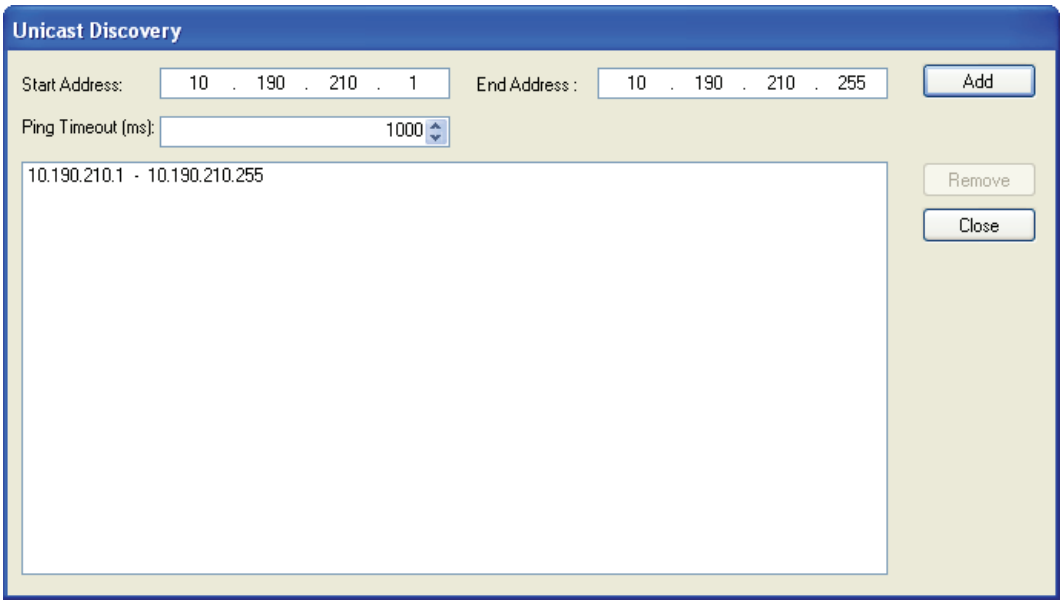
1. Discovery of all Moog EXO Cameras
2. Allows for remote configuration of the IP address and subnet mask
3. Permits batch firmware upgrade of all common EXO devices

Note: Silverlight is a free plug in and is required to interface with the Moog EXO Web brower.
Once your device is installed on your network and powered up, launch MDT from any computer on the network and the following window will be displayed:

The MDT supports 2 ways to discover a device. The first way doesn't need any configuration and uses the Bonjour discovery protocol. In order to be able to discover a device via Bonjour, the network must support multicast delivery.

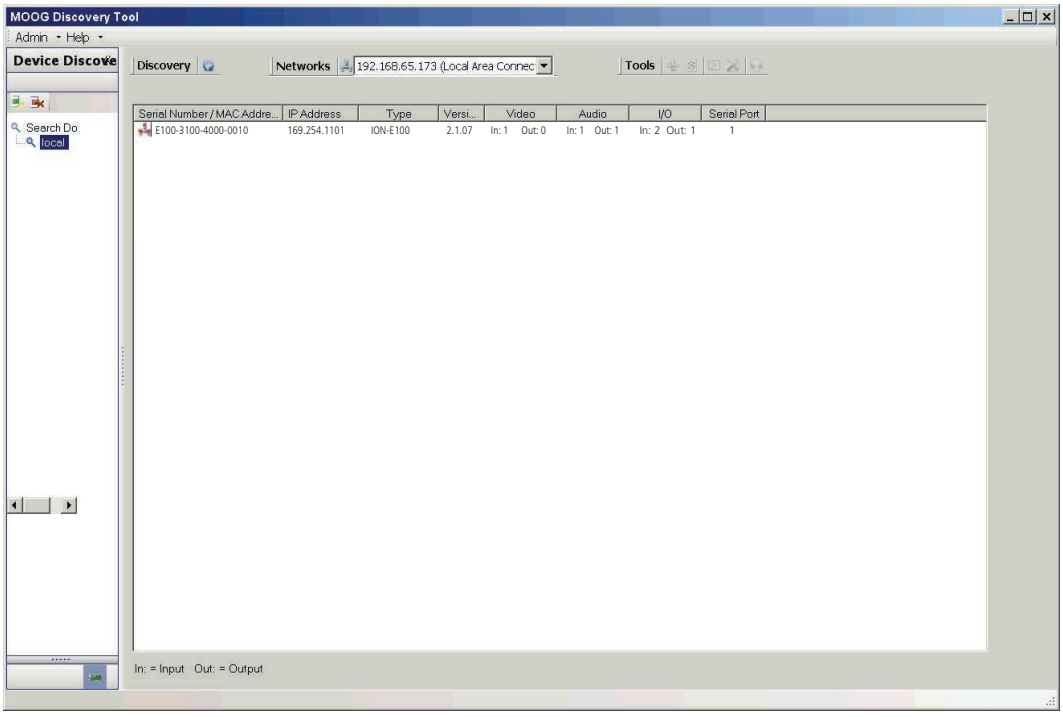


If it is not the case, you can use the second way, which is the Unicast Discovery. The Unicast Discovery can be configured by using the "Unicast Discovery" configuration form. This configuration form is available via the Admin / Unicast Discovery menu option.

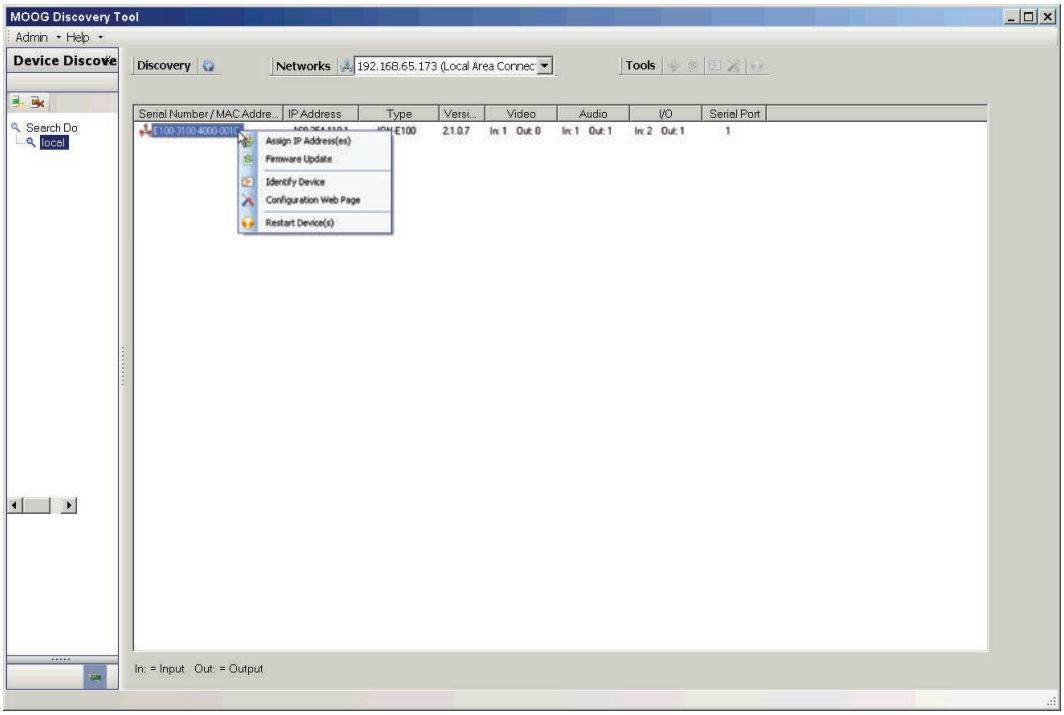


To configure the Unicast Discovery, add one or more IP address ranges. The Unicast Discovery tries to reach a device at a specific IP address in the configured ranges. The discovery can be a long process if the range of IP addresses is large and the device is at the end of the range. To accelerate the discovery, add several small ranges of IP addresses. The ping timeout option can be increased for a high latency network.

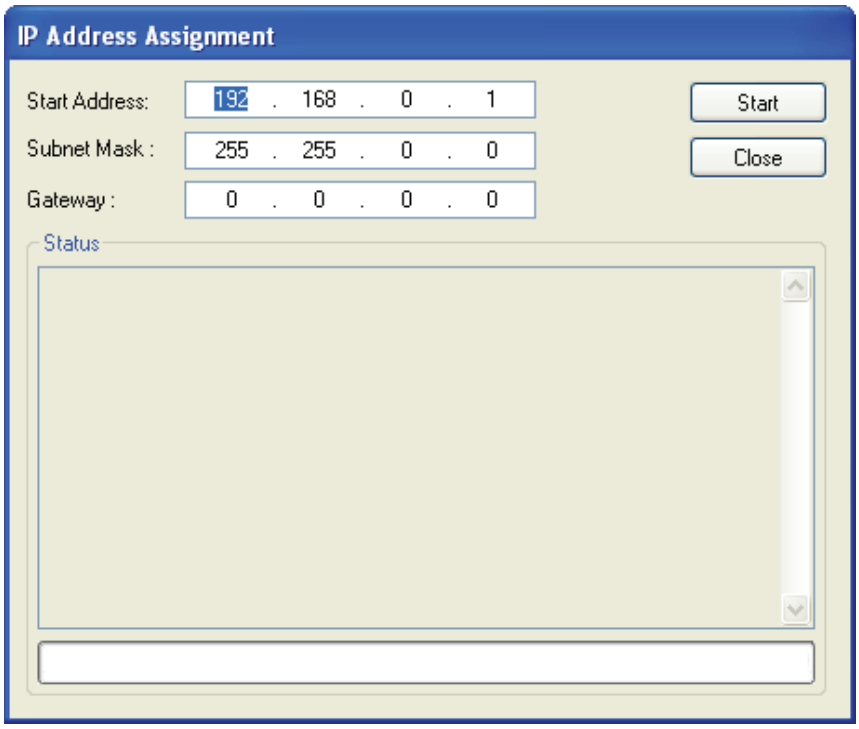
The MDT will display as many devices as it discovers on the network



If no DHCP server was able to assign an IP address to an Moog EXO Camera, it will appear in the MDT device list with an APIPA address (169.254.*.*). If an Moog EXO Camera displays an APIPA address it must be configured with a valid IP address before it can be remotely configured by selecting the ‘’Assign IP address” from the selection list and configuring the TCP / IP settings.



To assign IP Address, update firmware, or configure Moog web interface, right click on highlighted serial number / Mac Address.



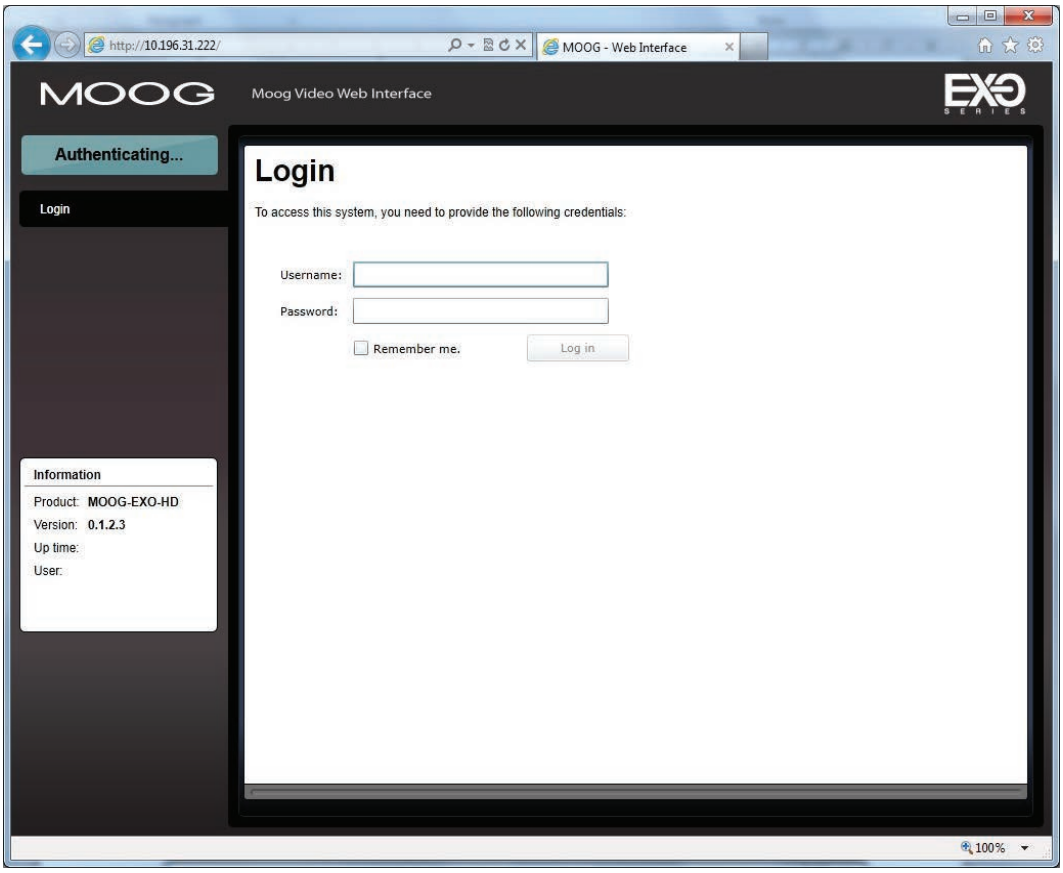
Assign IP Address(es)

Once the IP information is set, the Silverlight web application served by the EXO Camera can be launched from the MDT or directly in your web browser by typing the device's IP address in the address bar. You can start to use your networked video management system for final system configuration or you can configure advanced parameters using the Moog EXO web based management.

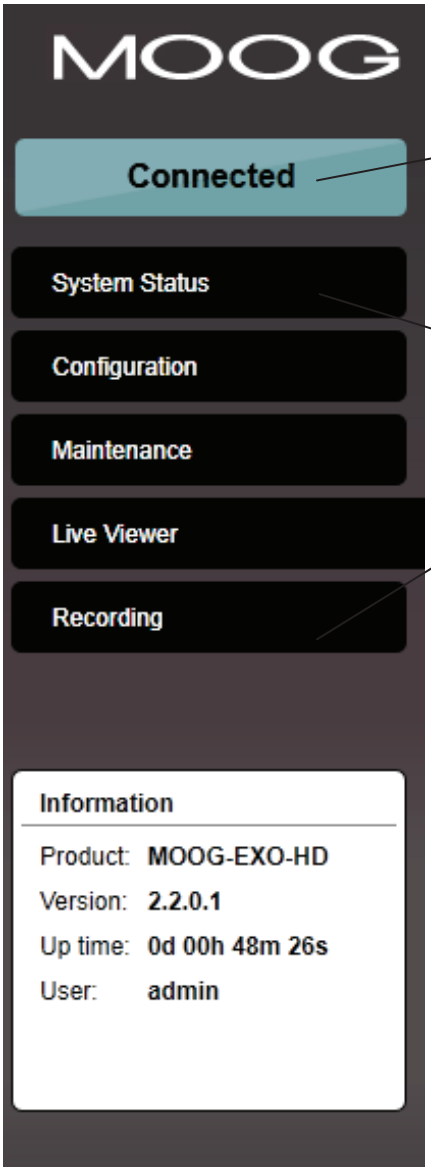
2.0.0 Using the Moog EXO Web Application

Application

When entering the Web Application, the following window will be displayed. You will be asked a username and password. The default User name and Password is ‘admin’.
(To reset the user name and password see / Configurations / User Accounts)



2.1.0 System Status

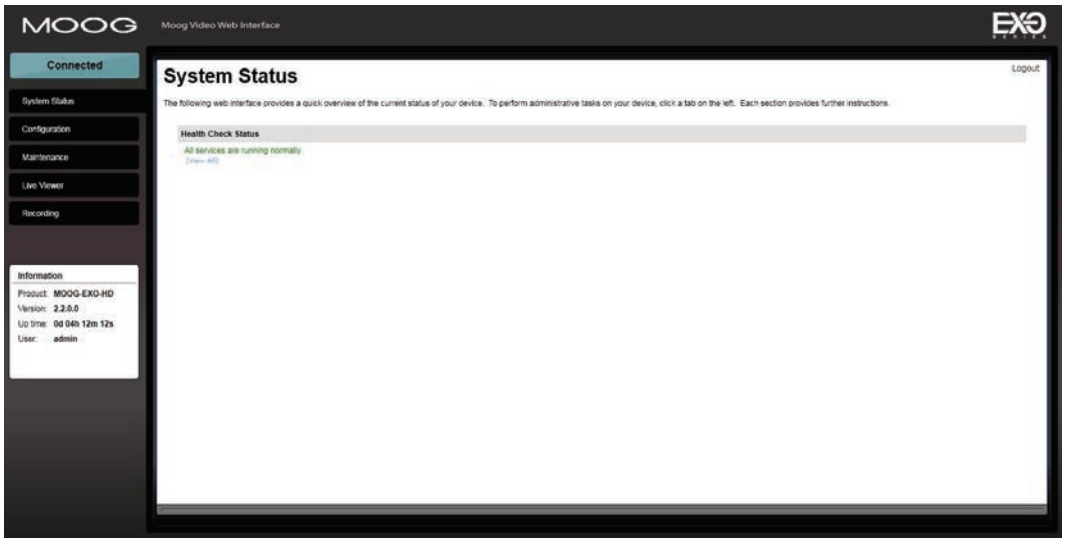


Status Window

Main Menu Tabs

1. System Status - 2.1.0
2. Configuration - 2.2.0
3. Maintenance - 3.0.0
4. Live Viewer - 4.0.0
5. Recording - 5.0.0

Upon successfully logging into the web interface, a welcome screen will be displayed. The welcome screen shows general devices health status as well as firmware version and system uptime.

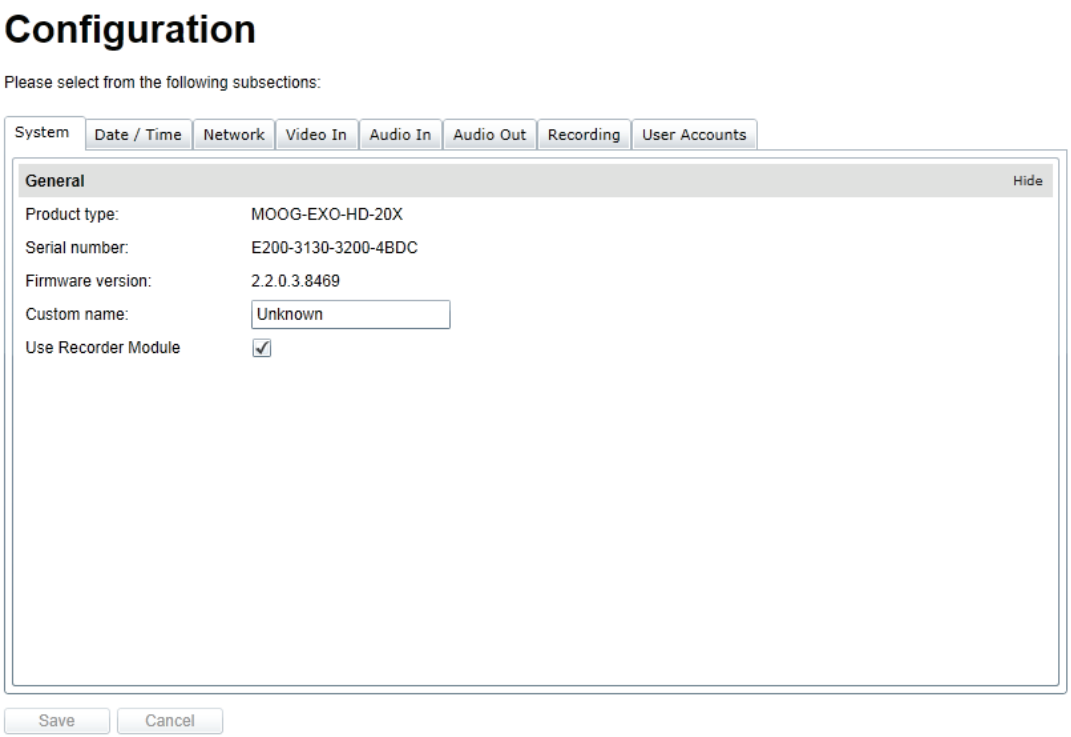


2.2.0 System Configuration

Configuration / System

Under the *Configuration* section, select the ***System*** tab to perform the following operations:

- View product model information, current firmware version and serial number.
- Specify a custom name; this name can be used by third-party software to display a selected name for the device.



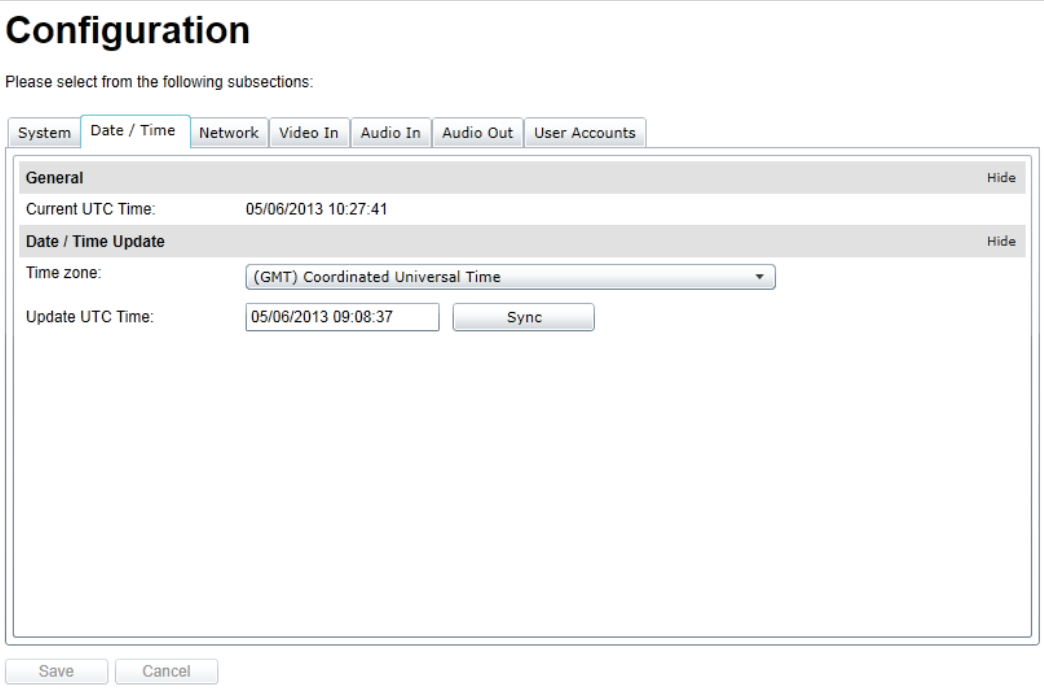
- Enable edge recording by checking the box “Use Recorder Module” checkbox. Disabling edge recording will accelerate the device’s boot time.

- To enable edge recording an SD card must be added to the camera interface card, located on the EXO pan/tilt device. **SD cards are not provided as a standard feature standard option**. Directions for installing the SD card are provided in the first section of this installer manual **Block 11**. Edge recording set up is done through the Recording Tab in the Live Viewer EXO screen.

- Note: Recording menu will only be displayed when user recorder module check box is selected. You must save, and then reboot to complete selection.

- SD Card: Use 2GB to 32 GB Micro SD Card of class 6 or above. You must make sure the card is formatted to FAT32 or EXT3.

2.2.1 Configuration / Date Time

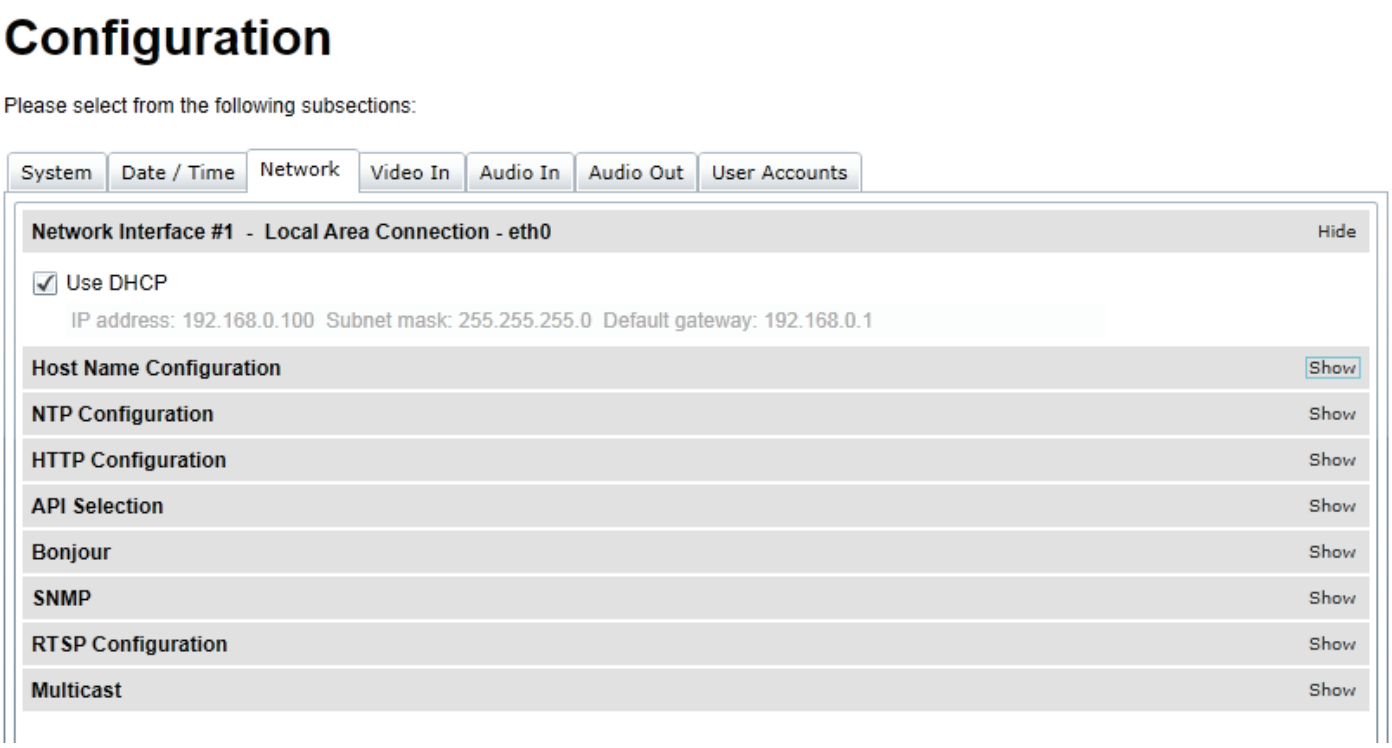


Under the ***Configuration*** section, select the ***Date Time*** tab to perform the following operations:

- Set the time zone in which the device is operating.
- Manually set the current date and time for the device's internal clock.
- Note: For an accurate time stamp, you must sync UTC Time.

2.2.2 Configuration / Network

Configuration / Network

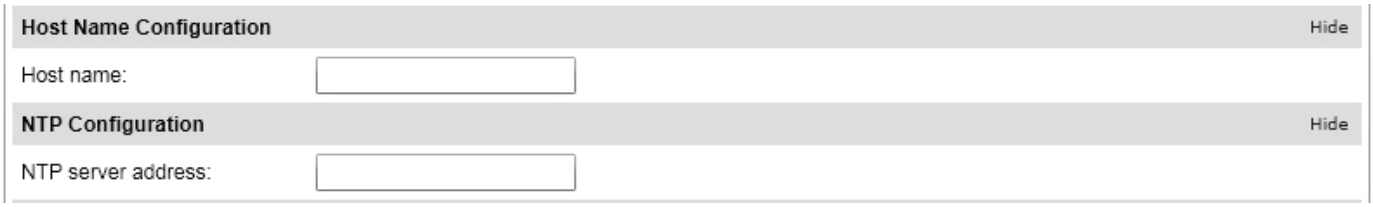


2.2.3 Configuration / Network / DHCP

Under the ***Configuration*** section, select the ***Network*** tab to perform the following operations:

- Set the encoder's IP parameters; DHCP or static IP information.
- Configure an NTP server to allow the device to automatically update its internal clock using an NTP server.

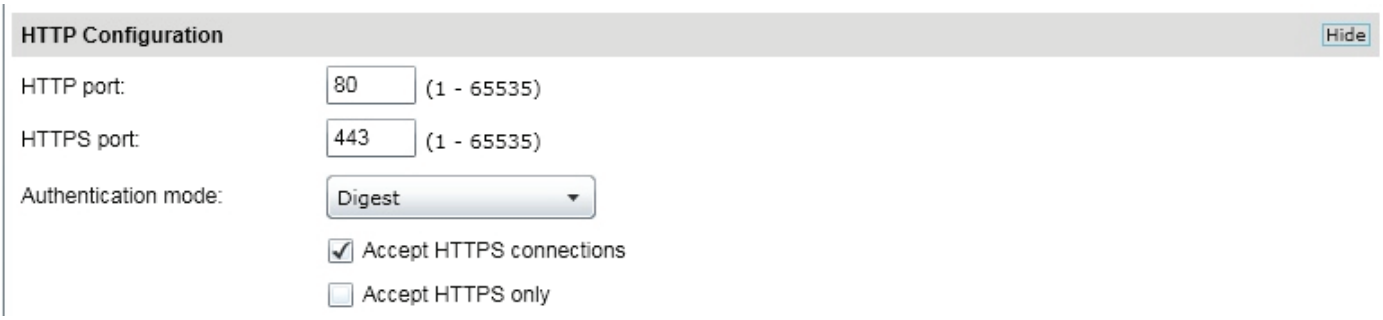
2.2.4 Configuration / Network / Host Name Configuration-NPT



NPT Server- use when desiring to have local network time as default, to do so you must…….

2.2.5 Configuration / Network / HTTP

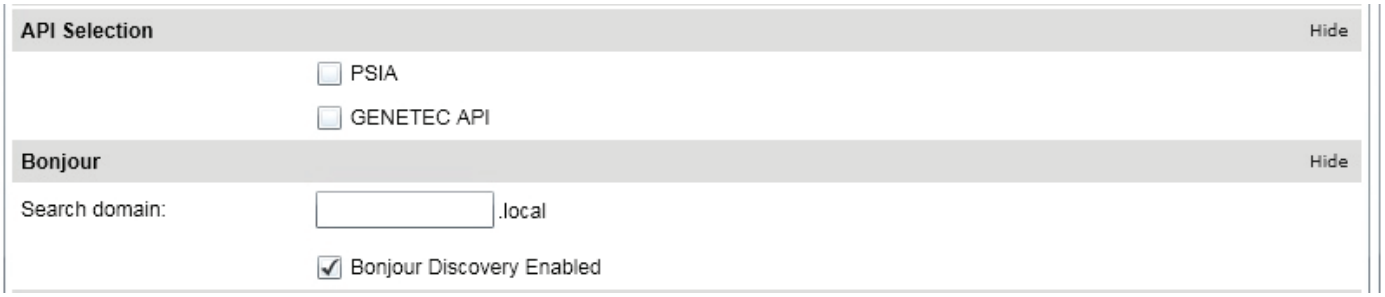
- Change the device's HTTP configuration, **Note: Avoid changing these settings unless absolutely necessary.**



2.2.6 Configuration / Network / API- Boujour

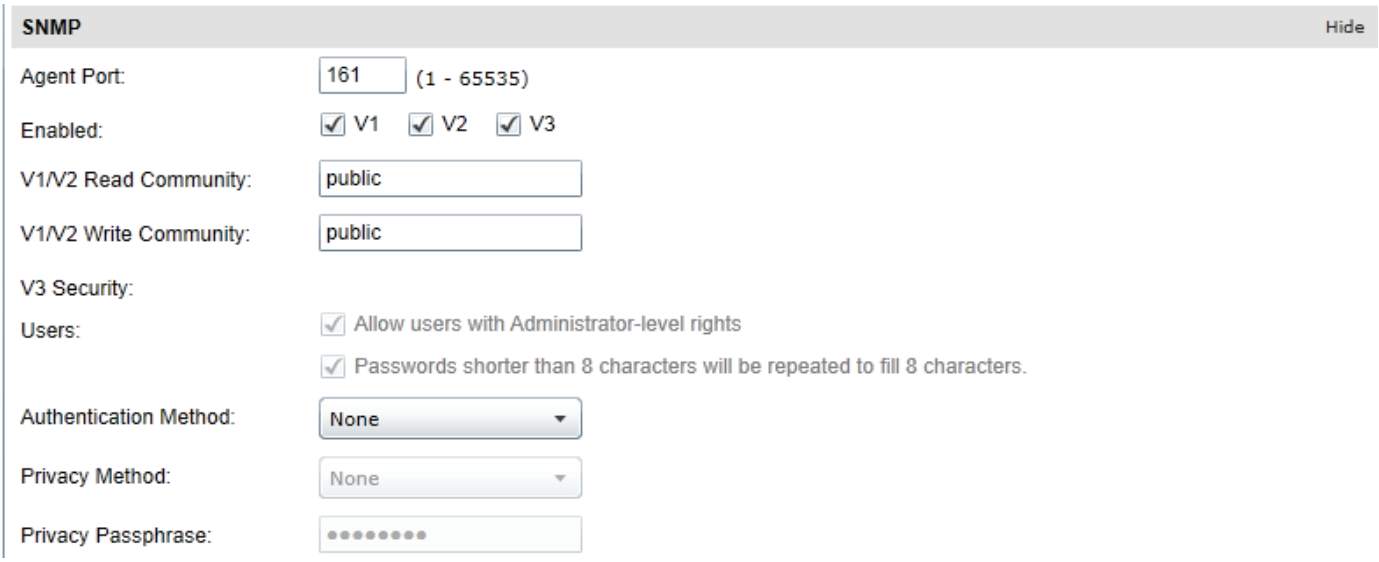
NOTE:

- To control the EXO Camera system with a VMS software system, you must enable the required Network APIs. Enable PSIA or GENETEC API depending on which VMS platform you intend to use with the device. Disabling any unrequired APIs will accelerate boot time. Milestone VMS will link through the PSIA API.



- Note: ONVIF is standard built in and does not require activation. If using ONVIF you do not need to select an API.
- Set Bonjour discovery protocol settings.
- Modify SNMP settings to match with any SNMP software you wish to use for monitoring the device.

2.2.7 Configuration / Network / SNMP Configuration



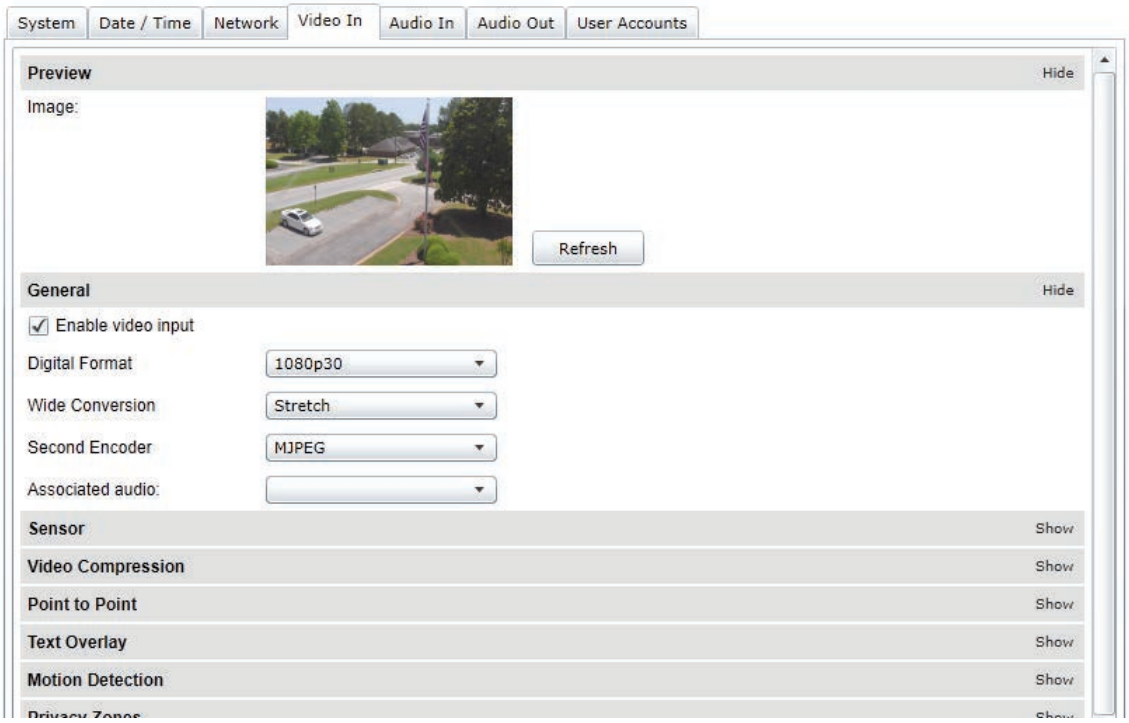
2.2.8 Configuration / Network / RTSP Configuration

2.2.9 Configuration / Network / Multicast

If using Mulitcast output, Insert Multicast start IP, and select start port.

2.3.0 Configuration / Video In

2.3.1 Configuration / Video In / Video Input

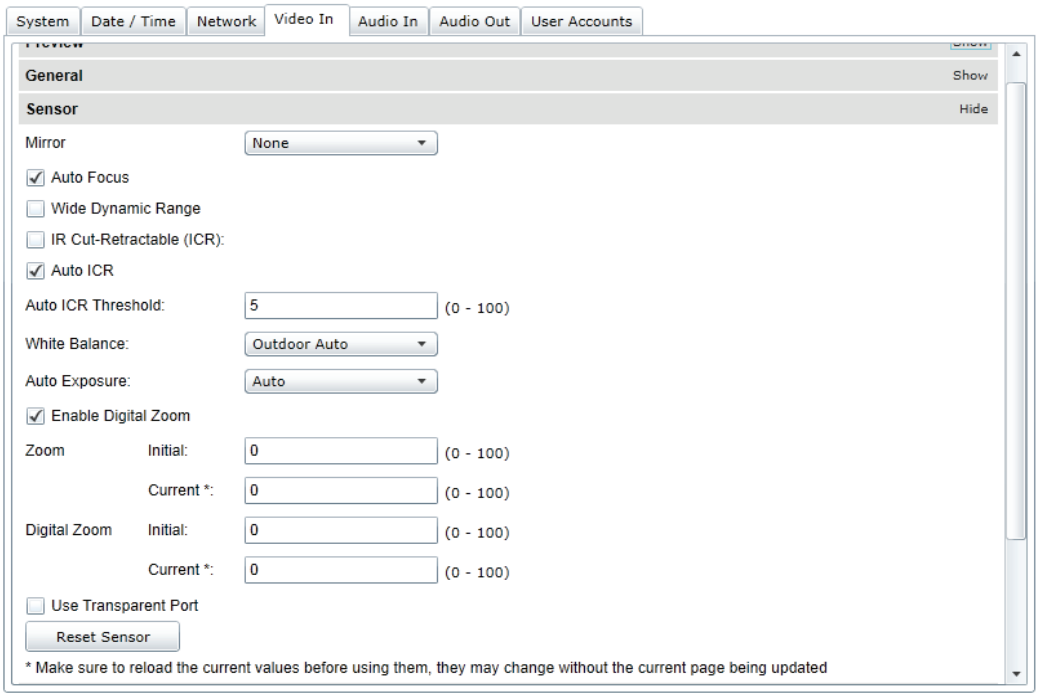


Under the Configuration section, select the Video In tab to perform the following operations:

Digital format – choices are, 720 30fps, 720 60fps, 1080 30fps, 1080 25fps. Note max camera output with WDR Active is 15fps (1080p).

2.3.2 Configuration / Video In / Sensor

Configure camera bloc / sensor parameters. These parameters will also be saved to the camera bloc itself if possible:

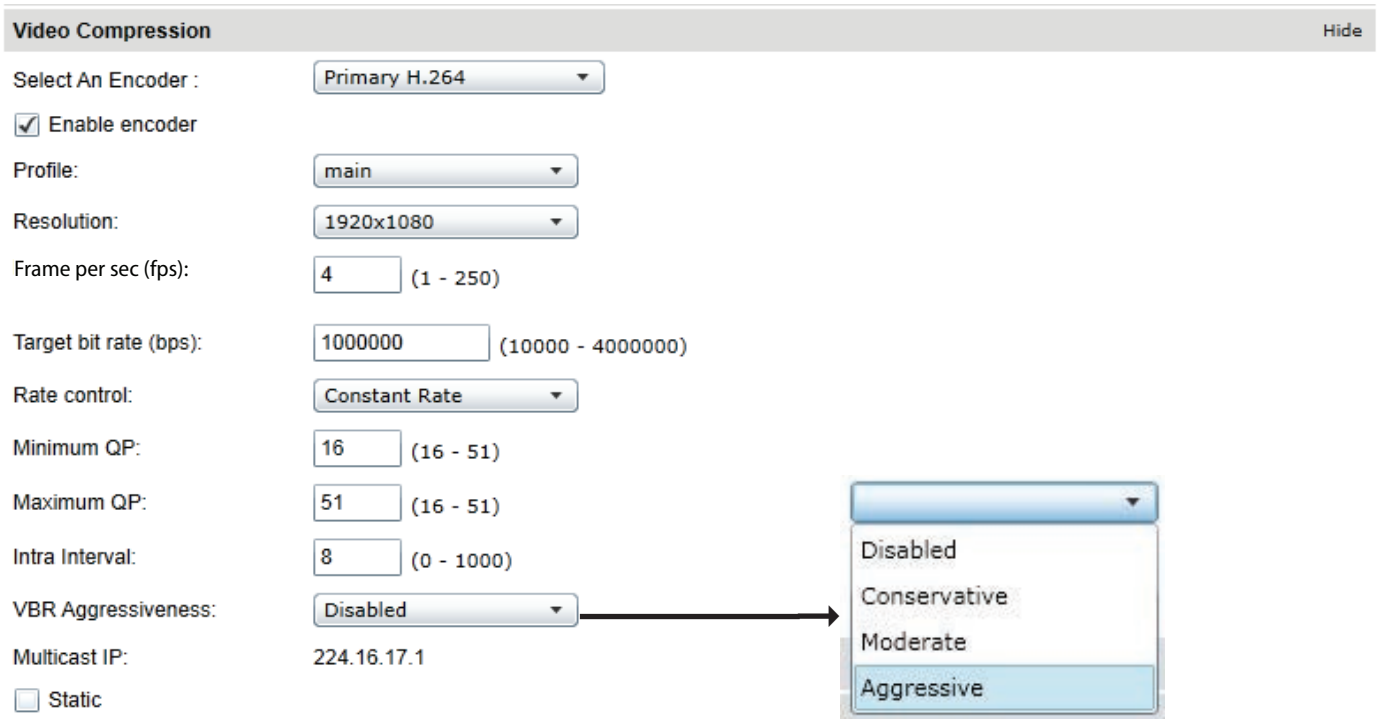


(Note: Activating WDR at 1080P will reduce maximum frame rate to 15fps.)

Configure video compression parameters for any of the three available codec instances (Primary H.264, Secondary H.264 and MJPEG). Most VMS software solutions will interact with these parameters and thus it is suggested to leave these at default values in the web interface.

VBR aggressiveness however is unique to Moog EXO Cameras and proposes various levels (disabled to aggressive) of motion triggered rate control. The more aggressive the setting, the more variation motion will have on the rate control. It is strongly suggested to disable VBR aggressiveness for low bit rate scenarios (below 1Mbps) as this parameter may negatively affect perceived video quality.

2.3.3 Configuration / Video In / Video Compression



Set Quantization (QP) level to desired rate. The higher the number the greater the compression. (16 very low, 51 very high)

Frame Rate - Allows you to specify the frame rate to be used by the codec.

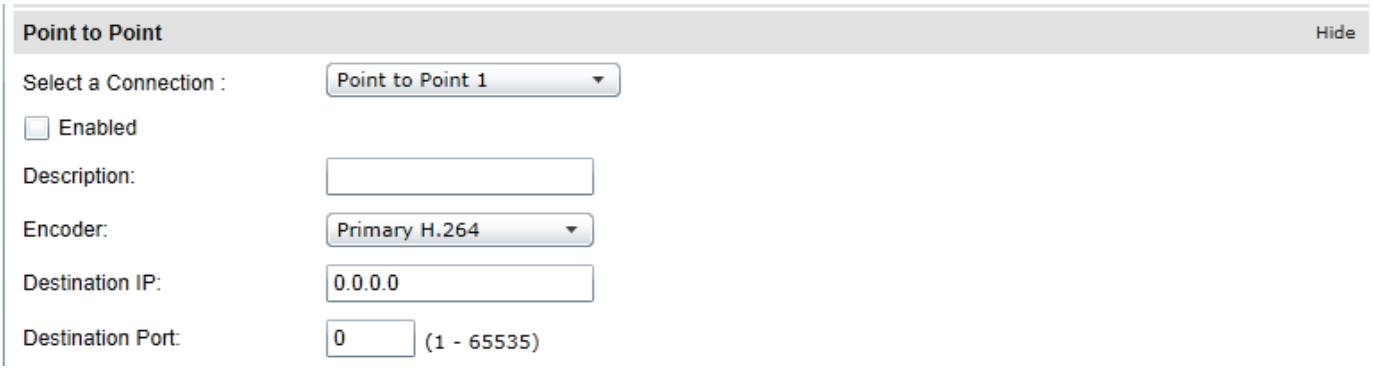
Rate Control - Allows you to choose between **Variable Bit Rat**e and **Constant Bit Rate**. The first option will instruct the H.264 codec to dynamically adjust the bit rate in order to meet both the target quality (QP) and frame rate settings. The second option will instruct the H.264 codec to prioritize target bit rate and vary quality (QP) first and frame rate as a last resort.

Min/Max QP - This parameter allows you to specify the compression range that the codec will use to determine image quality during compression. In order to force a specific quality setting, you can set the minimum and maximum to the same value. The lower the value, the better the quality will be.

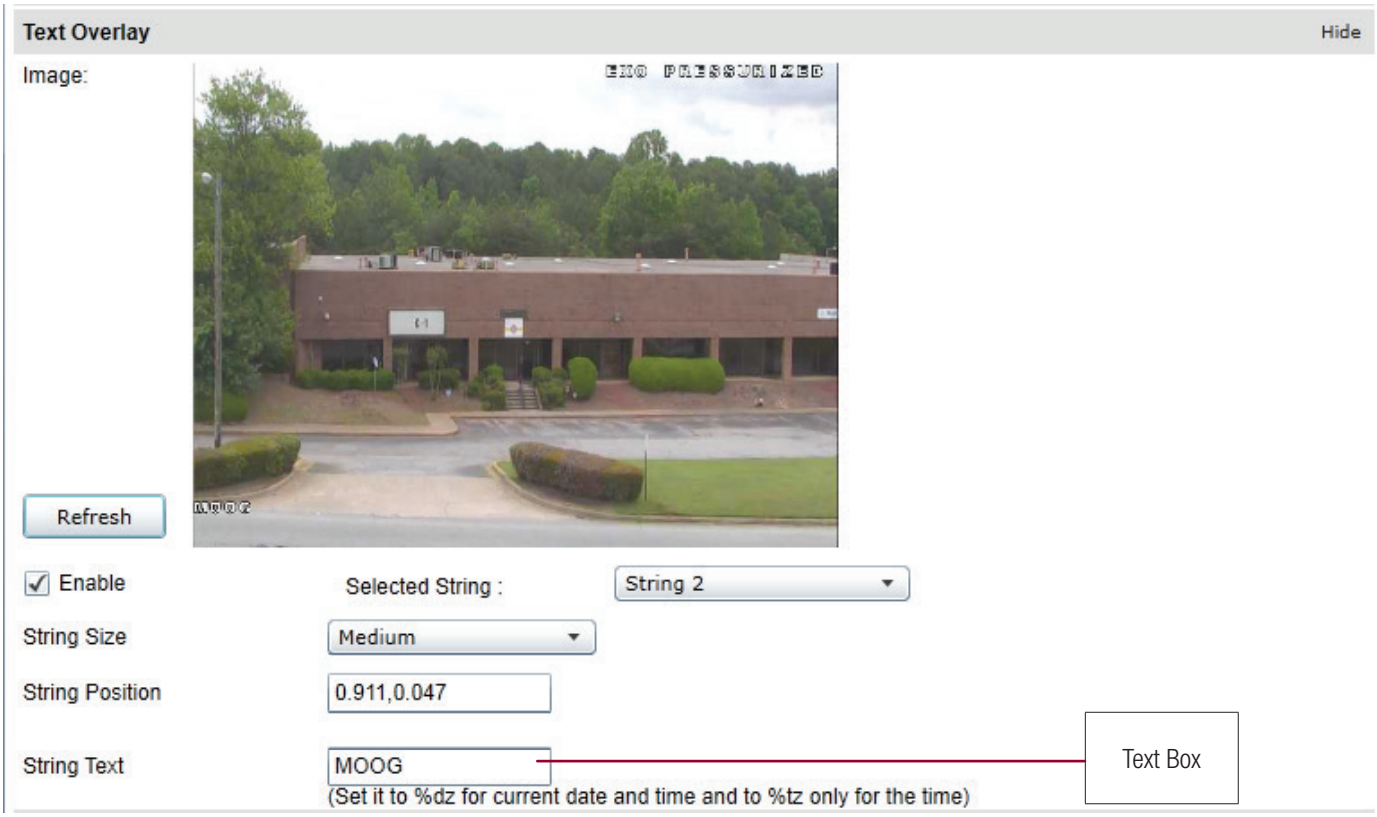
VBR Aggressiveness - This parameter allows you to specify if the codec should take into account the level of motion in the image for bit rate calculations. You can select from **Conservative**, **Moderate** and **Aggressive** options for this setting. Using the first option, the codec will allow bit rate to drop up to ¾ of the configured target bit rate when no motion is detected in the image. Using the second option, the codec will allow bit rate to drop up to ½ of the configured target bit rate when no motion is detected in the image. Using the first option, the codec will allow bit rate to drop up to ¼ of the configured target bit rate when no motion is detected in the image. You can disable this feature by selecting the **disabled** option.

2.3.4 Configuration / Video In / Point to Point

- Configure point to point video connections (up to three) for creating persistent video streams from the encoder to a network endpoint.



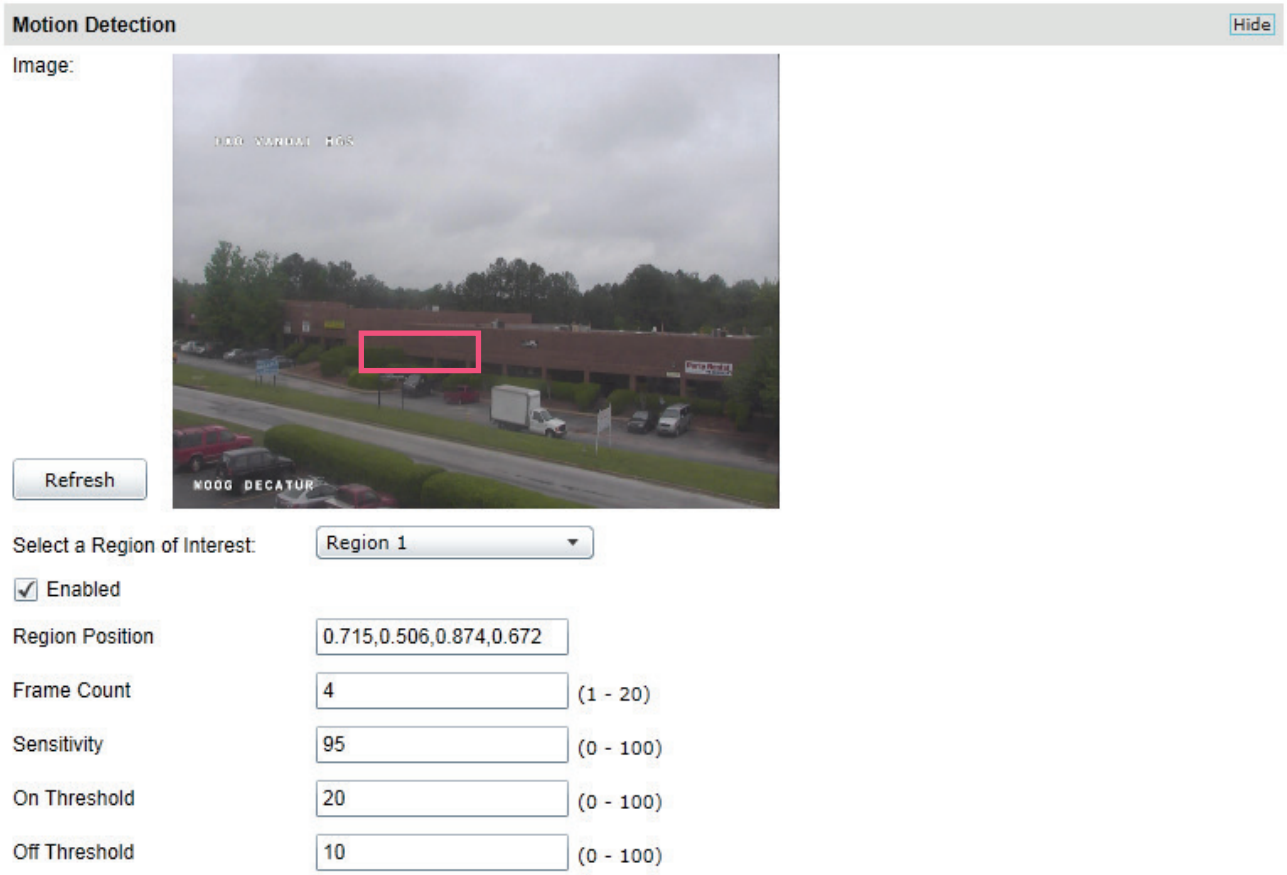
2.3.5 Configuration / Video In / Text Overlay



To insert a text overlay:

- There are (2) available strings (Text blocks). Select string.
- Select string Size.
- For string position click mouse inside string position box.
  - Text bar will appear on video image.
  - If you wish to relocate, simply click in desired position.
  - Type desired text into String Text Box.
  - Press Save Button.

2.3.6 Configuration / Video In / Motion Detection

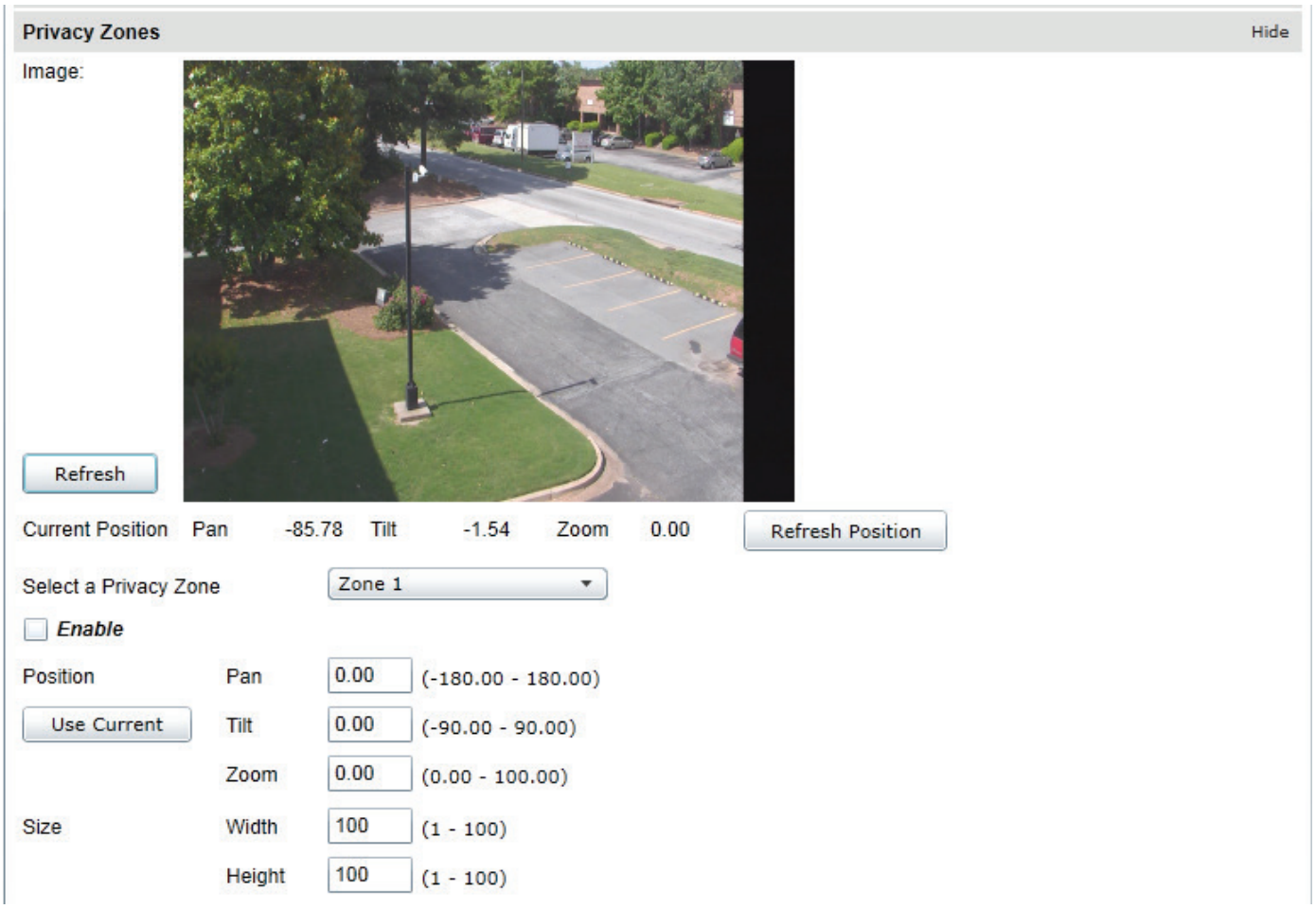


Select from 1 of 4 available regions:

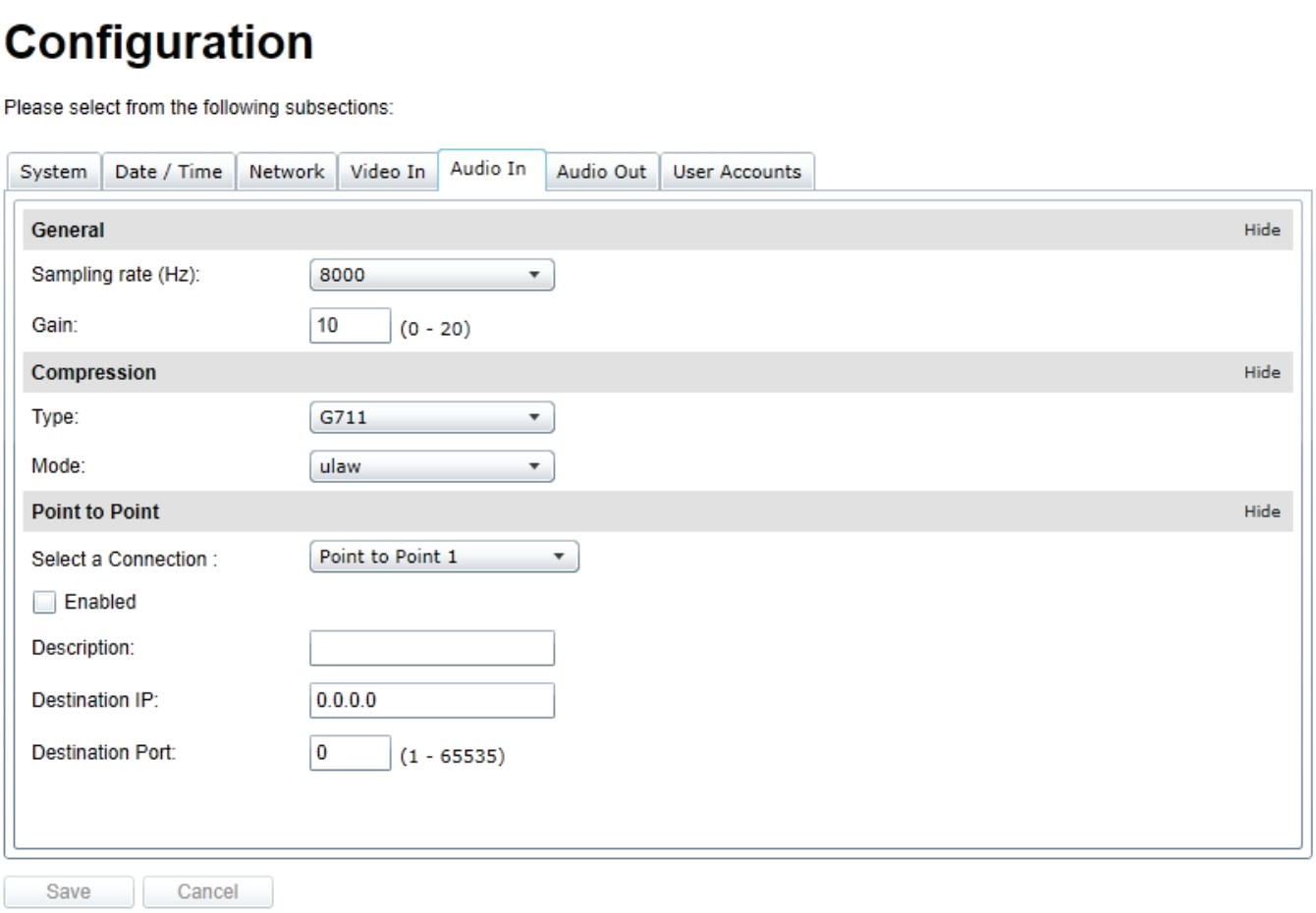
- With mouse click on region position box.
- Bring mouse pointer to view window and drag box around area for motion detection.
- Select desired Frame Count, Sensitivity and Thresholds.
- Press “Save” button to store information.
- You can select up to (4) separate “Motion” windows.
    - Frame count: Number of frames required to trigger motion
    - Sensitivity: No sensitivity, 100 MAX sensitivity
    - Threshold: % of image required to trigger, both threshold must have a value; “off” value must be lower than “on”.

2.3.7 Configuration / Video In / Privacy Zones

Privacy Zones are used to block out video in areas view is not permitted or desired.



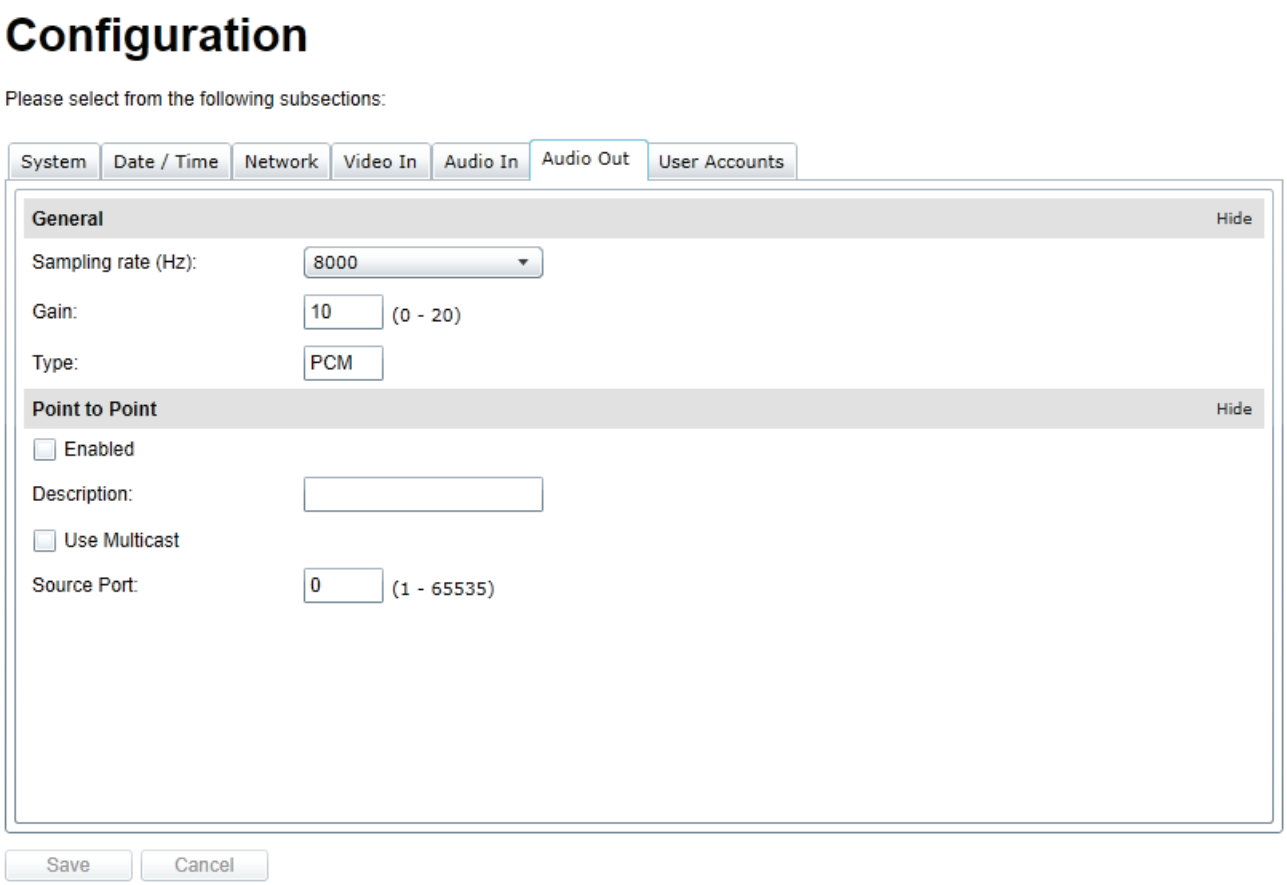
2.3.8 Configuration / Audio In



Under the ***Configuration*** section, select the ***Audio In*** tab to perform the following operations:

- Configure audio input compression parameters.
- Configure point to point audio connections (up to three) for creating persistent audio streams from the encoder to a network endpoint.

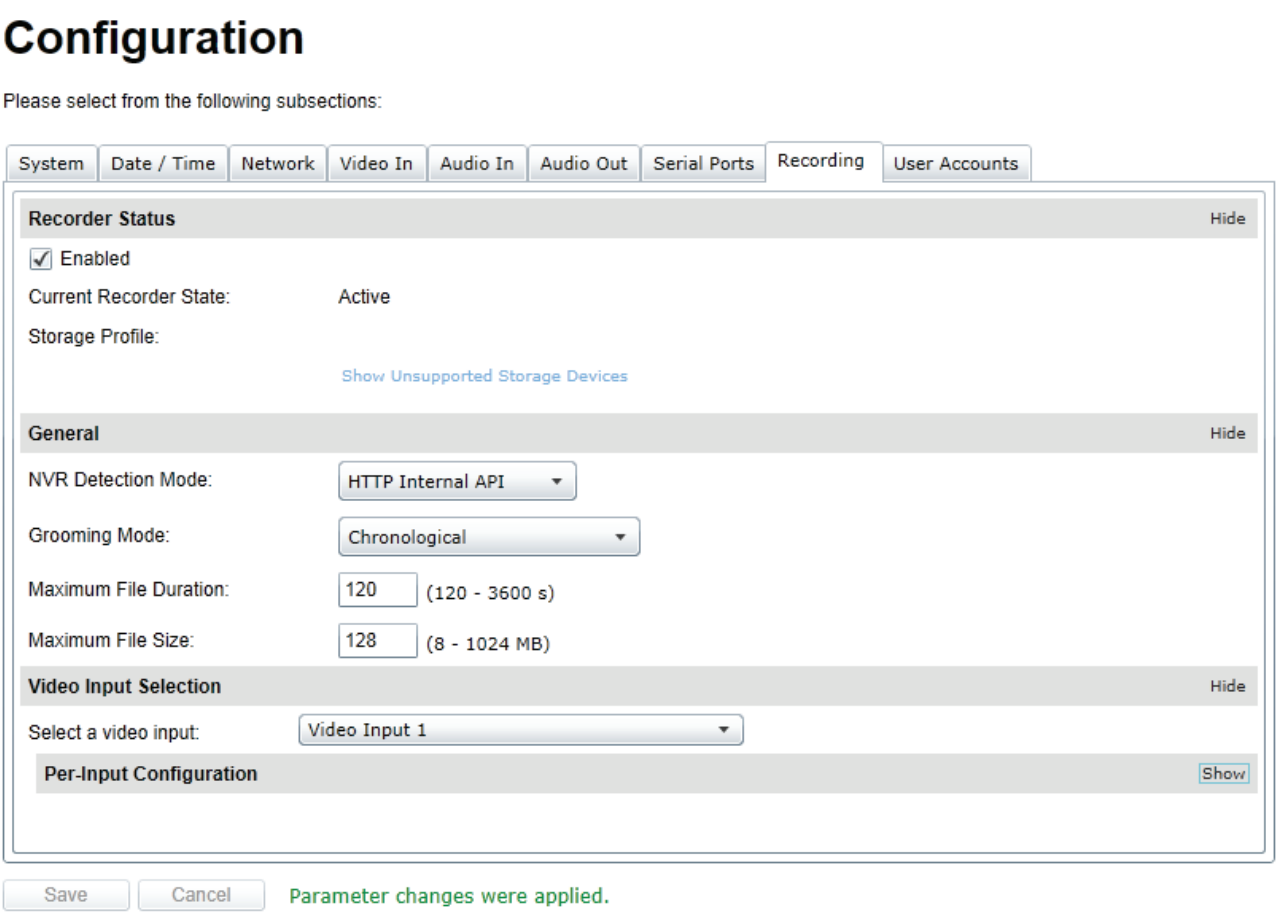
2.3.9 Configuration / Audio Out

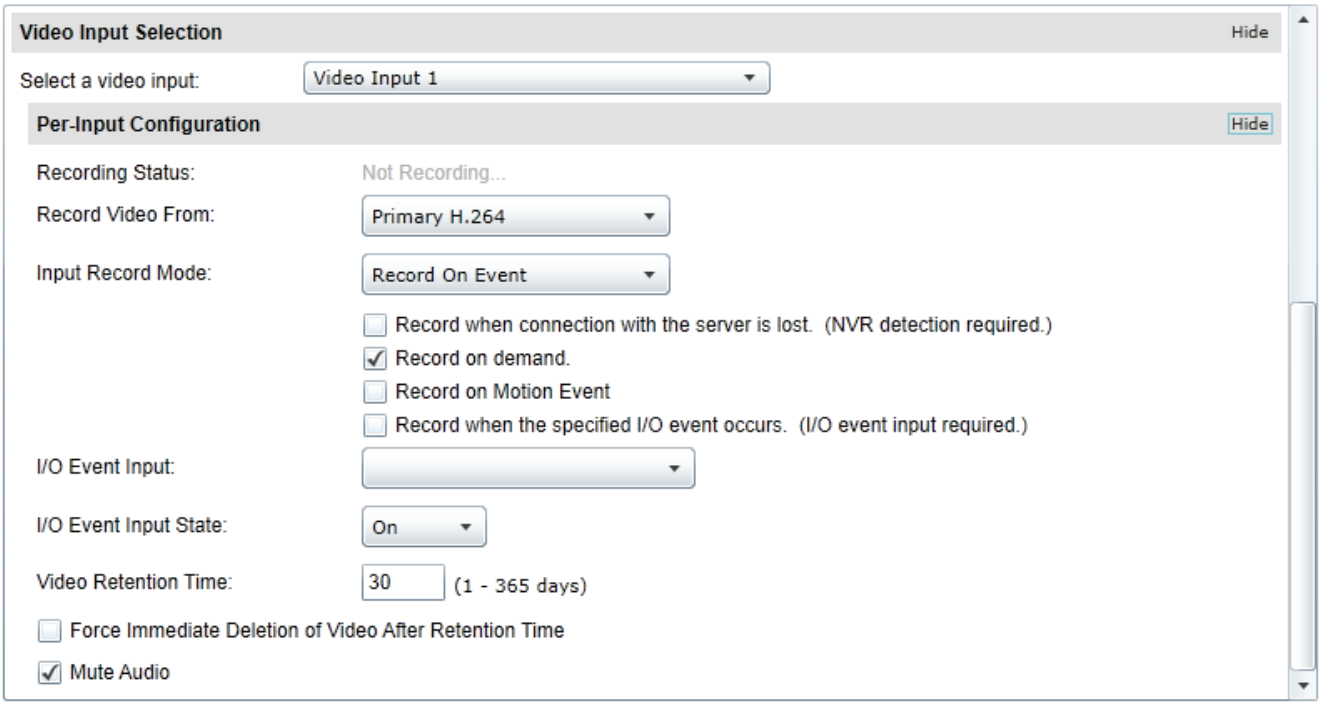


Under the ***Configuration*** section, select the ***Audio Out*** tab to perform the following operations:

- Configure audio output parameters.
- Configure a point to point audio connection for receiving a persistent audio stream from a network endpoint.

2.4.0 Configuration / Recording



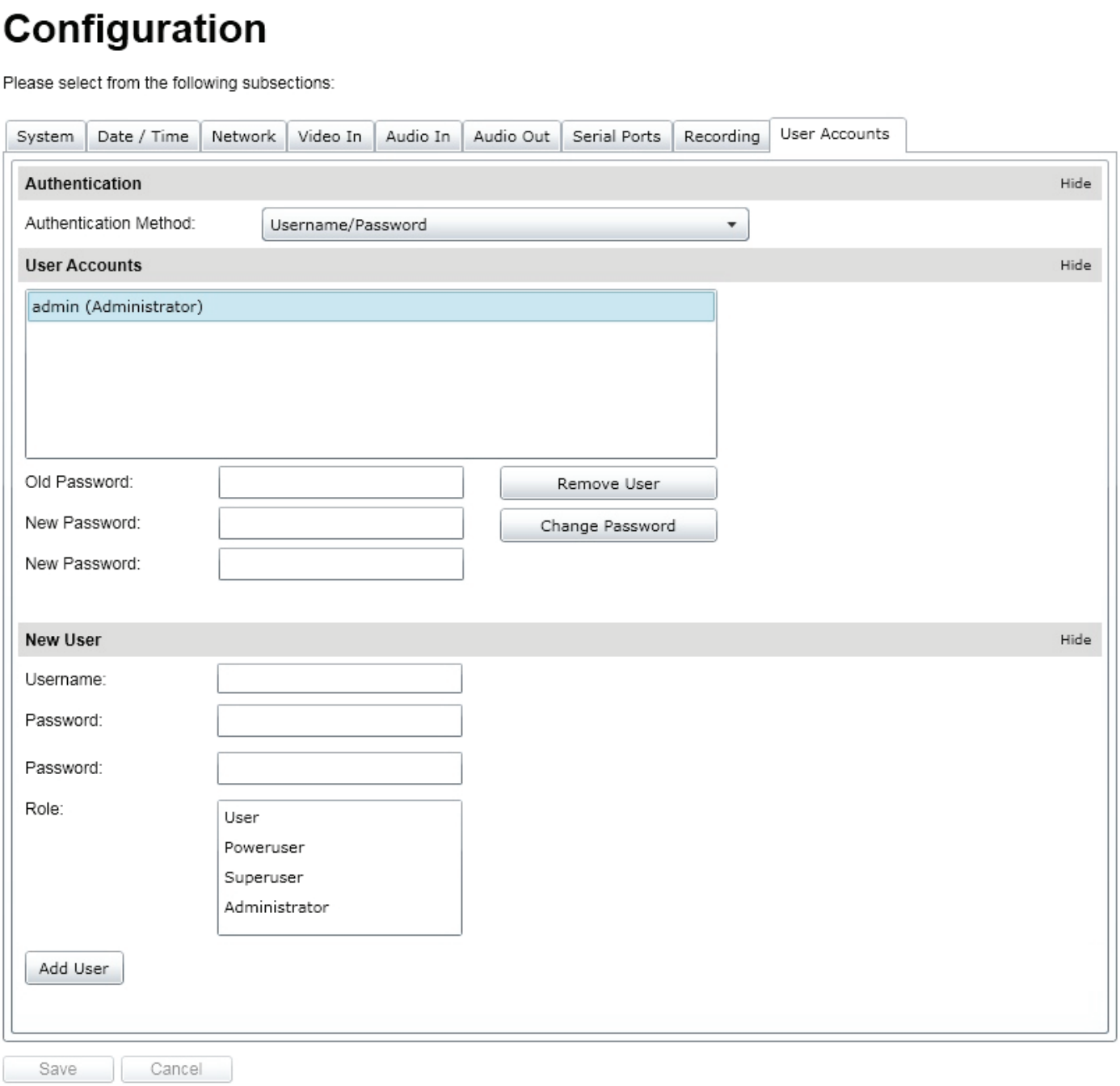


Note: Recording Menu will ***NOT*** be visible unless activated; see 2.20 System configuration.

- Grooming mode; Select method to remove files from full SD card chronological will remove old files first.

2.4.1 Configuration / User Accounts

Under the ***Configuration*** section, select the ***User Accounts*** tab to perform the following operations:

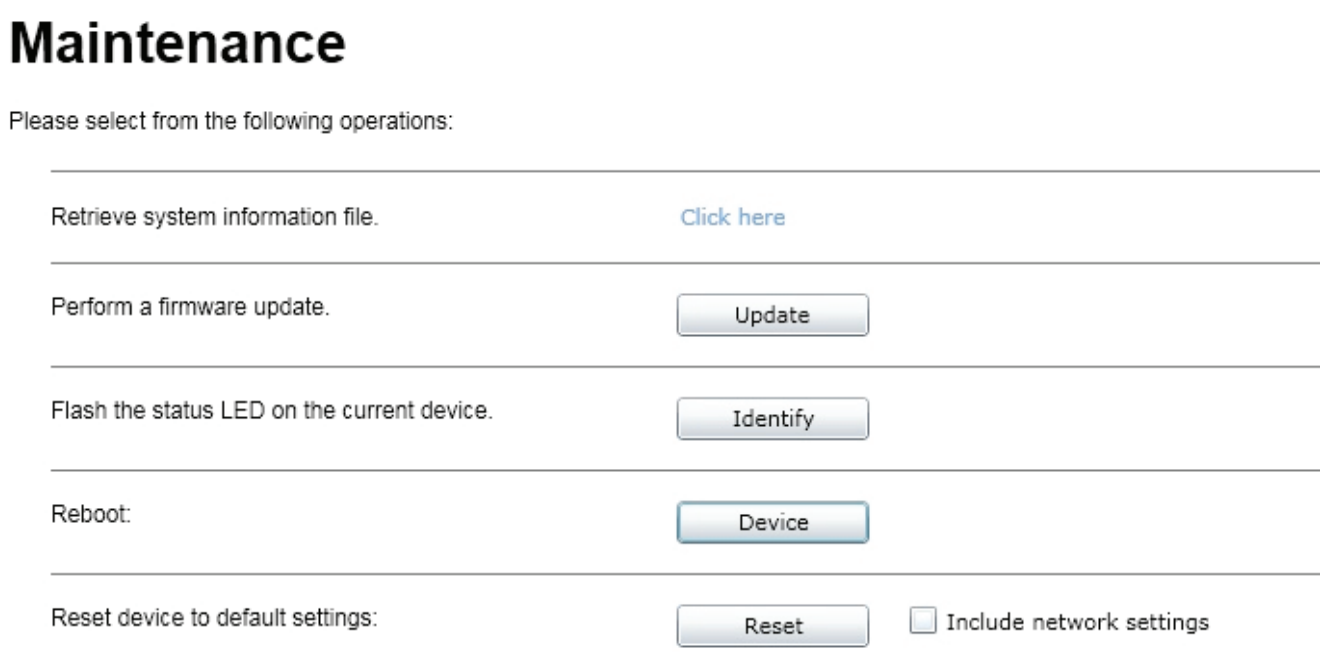


- Select the web interface's authentication method. A dual passphrase is made available for additional security.
- Manage user accounts which have access to the device.

User Roles:

Administrator:	All is available
Superuser:	All is available except the user management
Poweruser:	All is available except the user management and the recording
User:	Only access basic operations: system information, live video (no ptz controls), date time management and password change

3.0.0 Maintenance



This section describes how to update your Moog EXO Cameras to newer firmware versions from the web application.

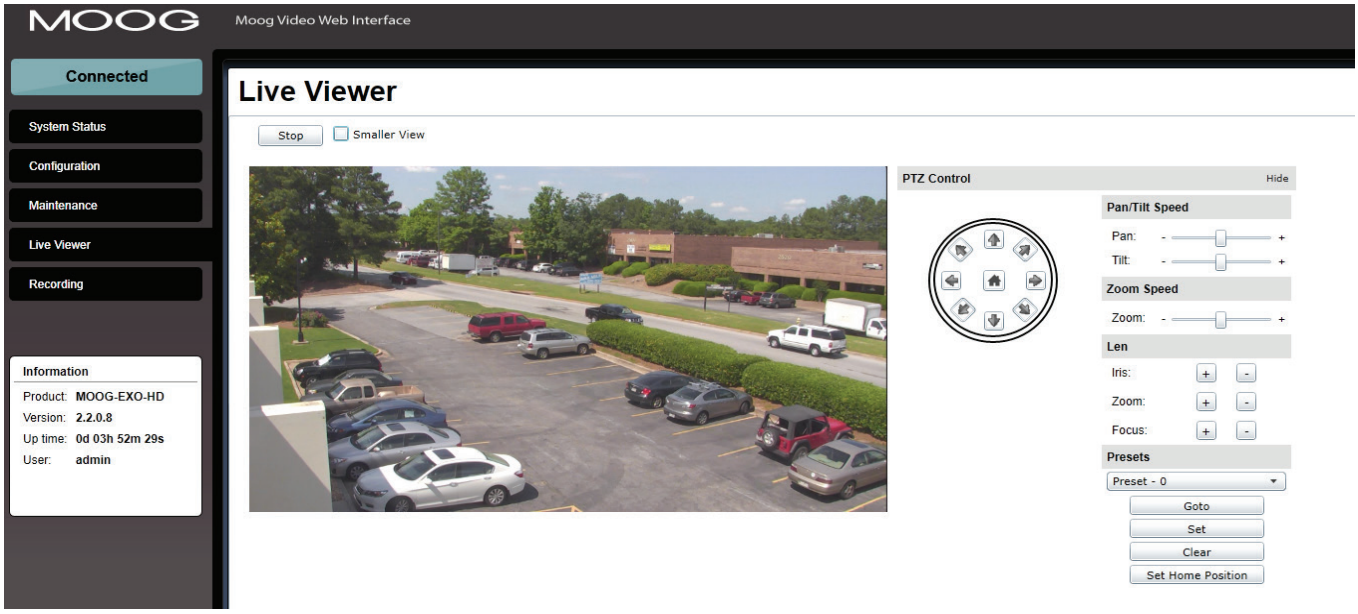
1. To find the latest file go to www.videolarm.com/technical-support/.
2. Click on “EXO PTZ Camera Firmware” - click, save file.
3. Navigate to your device’s web application using your favorite web browser.
4. Click on the ***Maintenance*** tab.
5. Click on the ***Update*** button, locate downloaded firmware. You will be asked for the firmware update file; please select the ***.iof*** file which was provided by Moog.
6. You will see the following messages indicating the status of the update:

- Firmware upload in progress... (100%)
  - Lasts around 95 seconds.
- Firmware uploaded. Saving to internal storage... (0%)
  - Lasts around 45 seconds.
- Validating and decompressing firmware... (0%)
  - Lasts around 105 seconds.
- Firmware ready for installation. Rebooting device... (0%)
  - Web page will disconnect from device until device has rebooted.
  - You will be prompted for login once the device is up again.
  - Lasts around 110 seconds.
- Testing firmware stability... (26%)
  - Lasts 120 seconds.
- Firmware update complete. (100%)

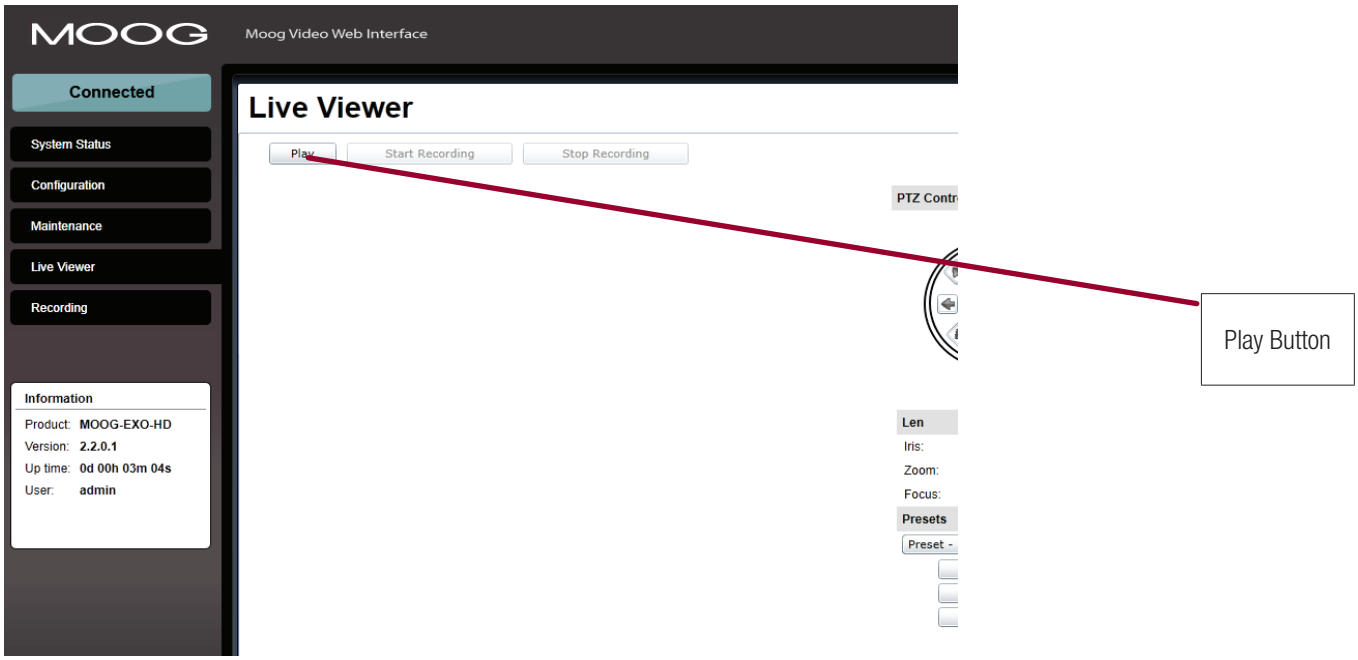
4.0.0 Live Viewer

Use Live View for:

- Live Camera View
- Start and Stop Recording
- Pan / Tilt and Camera Control
- Setting Presets
- Adjust View Scale

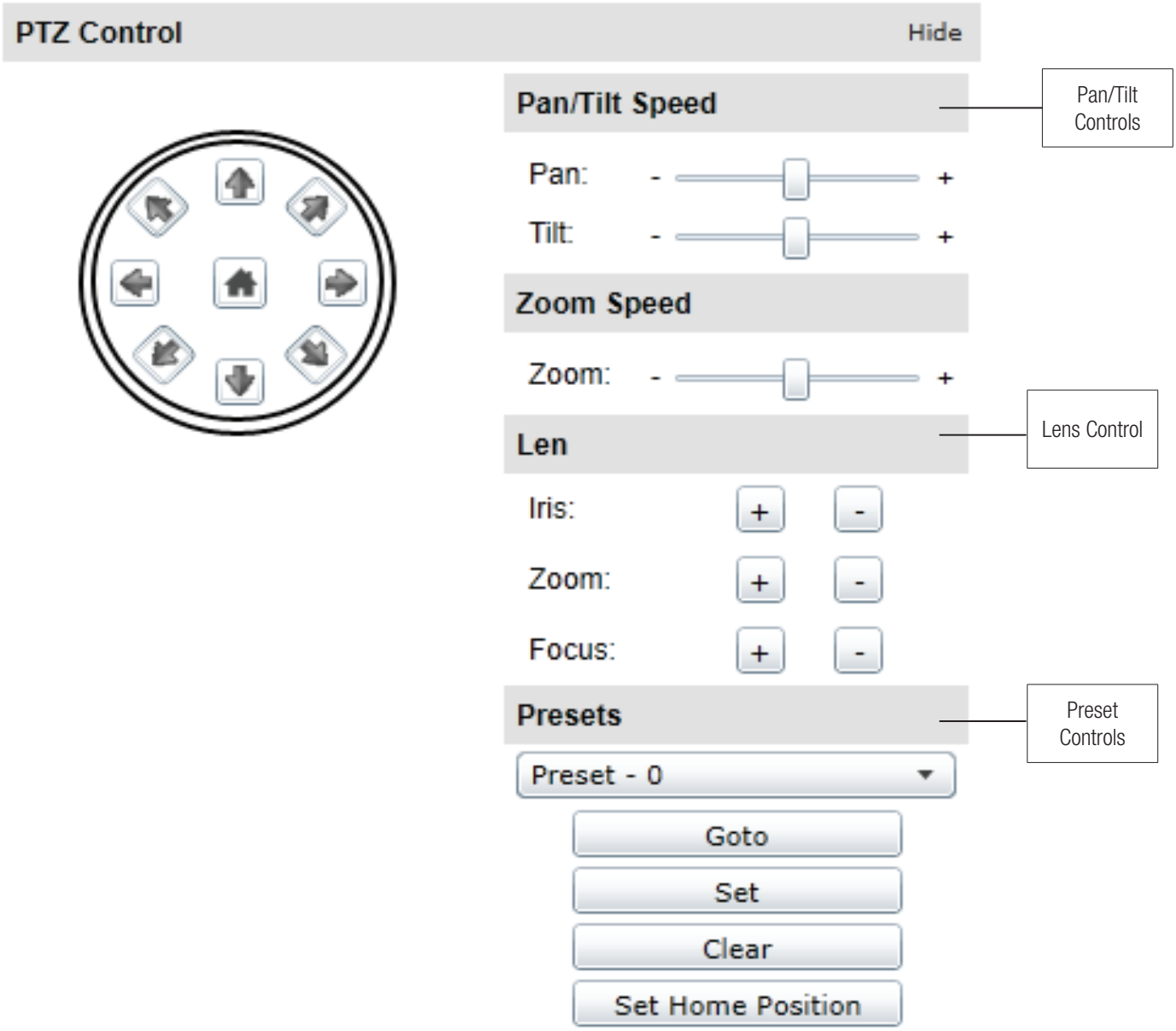


To enable live you must activate by pressing the “Play” button.



To adjust viewing scale for 1024 x 768 monitor, press scale view.

4.1.0 Live Viewer Pan / Tilt and Presets

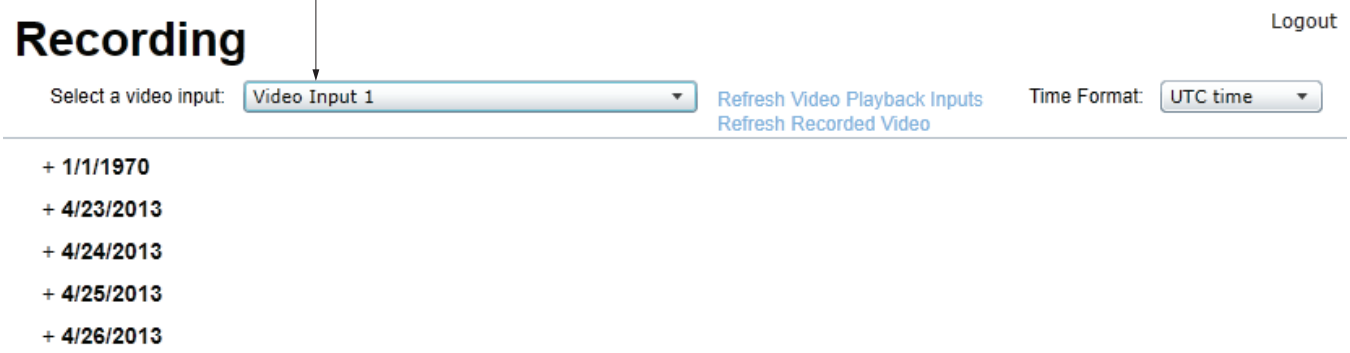


- Pan Tilt Control; To operate Press Arrow in desired direction of movement.
- Use Pan / Tilt speed slinder controls to vary Pan / Tilt speed control, to increase speed, slide control knob to (?)
- Lens Funtion use +/- buttons to update Iris, Zoom and Focus.
- Preset Functions.
    - First Select Preset No.
    - Then position Camera and lens to desired position
    - Press “Set” to save Preset.
    - For additional presets, repeat process.
    - To clear, select desired preset press “clear”
- To establish a home position – move the camera to desired position, press set home position – Pan Tilt will use this as default start up position.

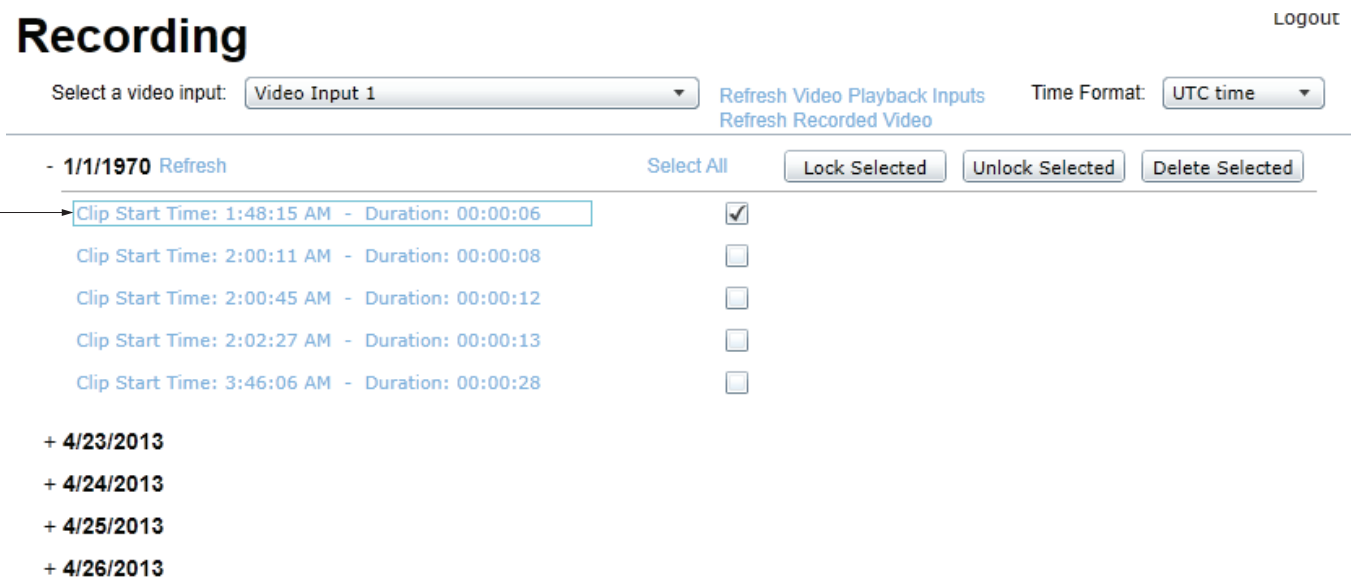
5.0.0 Recording

To activate recording mode you must go to Configuration / System / Use Recorder Mode. Click “Use Recorder Mode” checkbox. This will activate addional Recording controls in the recording window. You must “Save” and then “Reboot” after making this change

> Select Video Input



> Select Date of the Recording



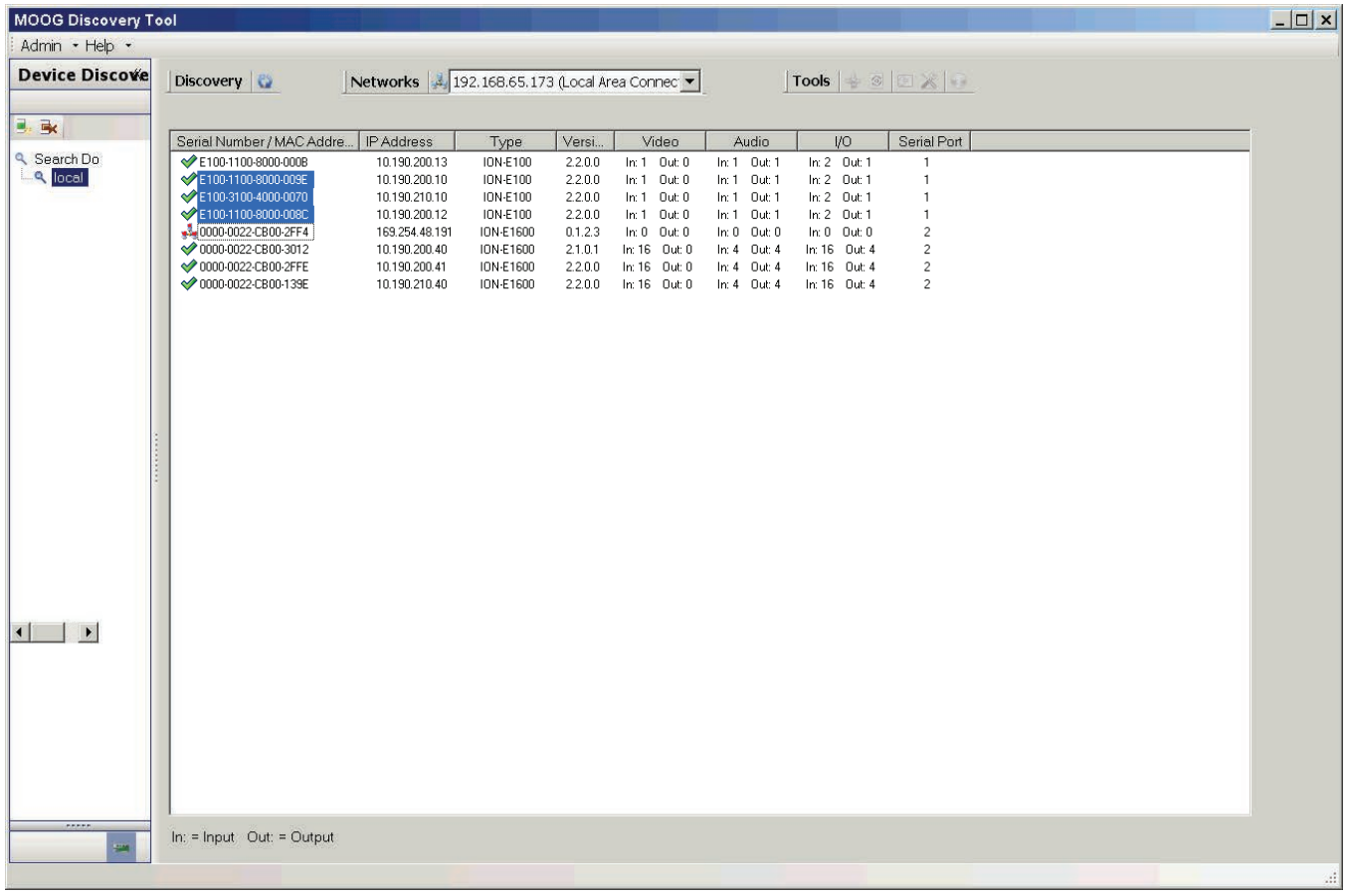
Then select the filed clip you wish to view
Note: You must have either VLC Player or Windows Media Player installed.

6.0.0 Performing Batch Firmware Update

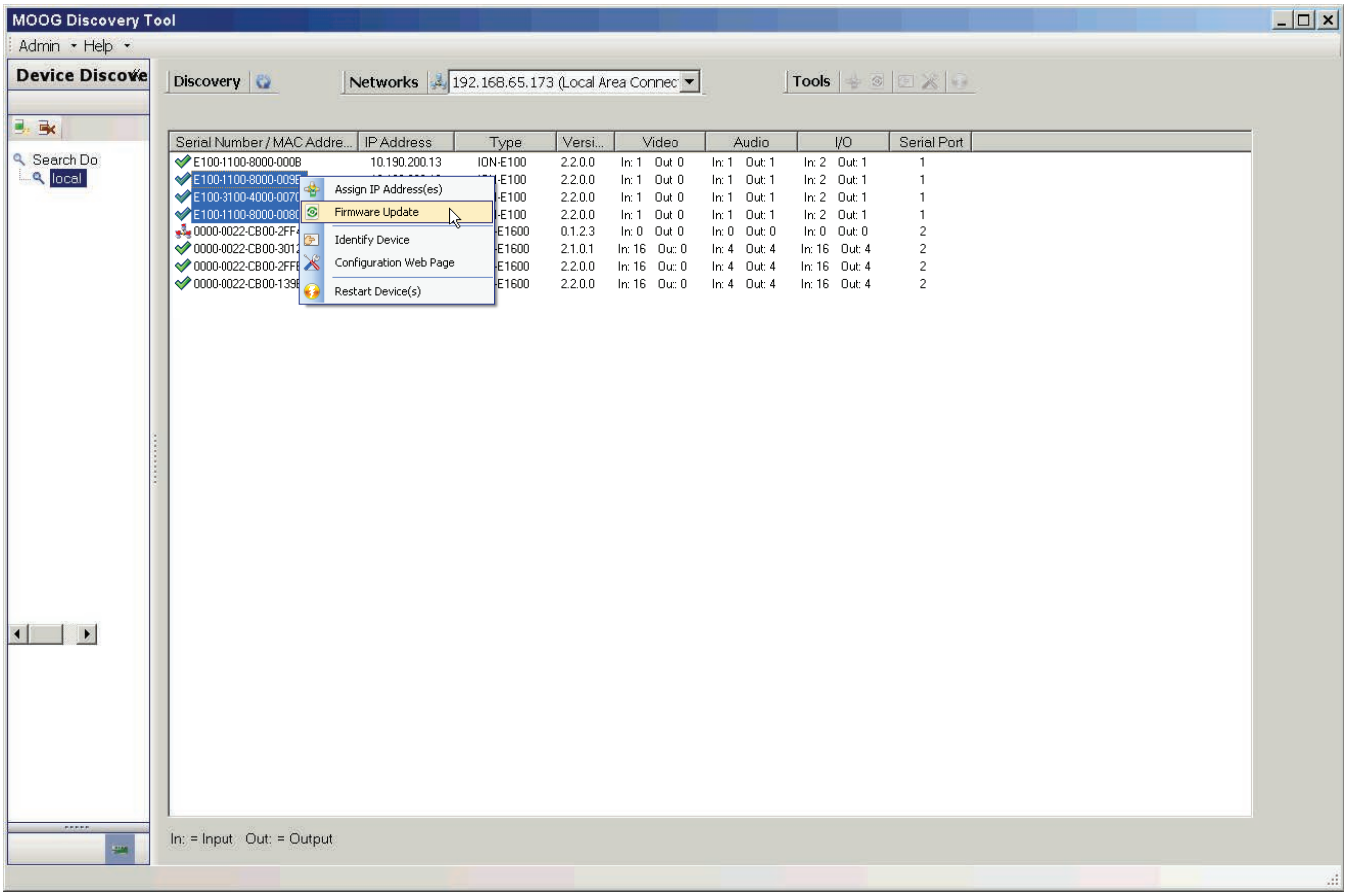
This section describes how to perform a batch update of multiple Moog EXO Camera devices to newer firmware versions from the MDT.

The batch firmware update works by starting a firmware update session. Only one session at time is allowed and only 20 devices can be selected by session.

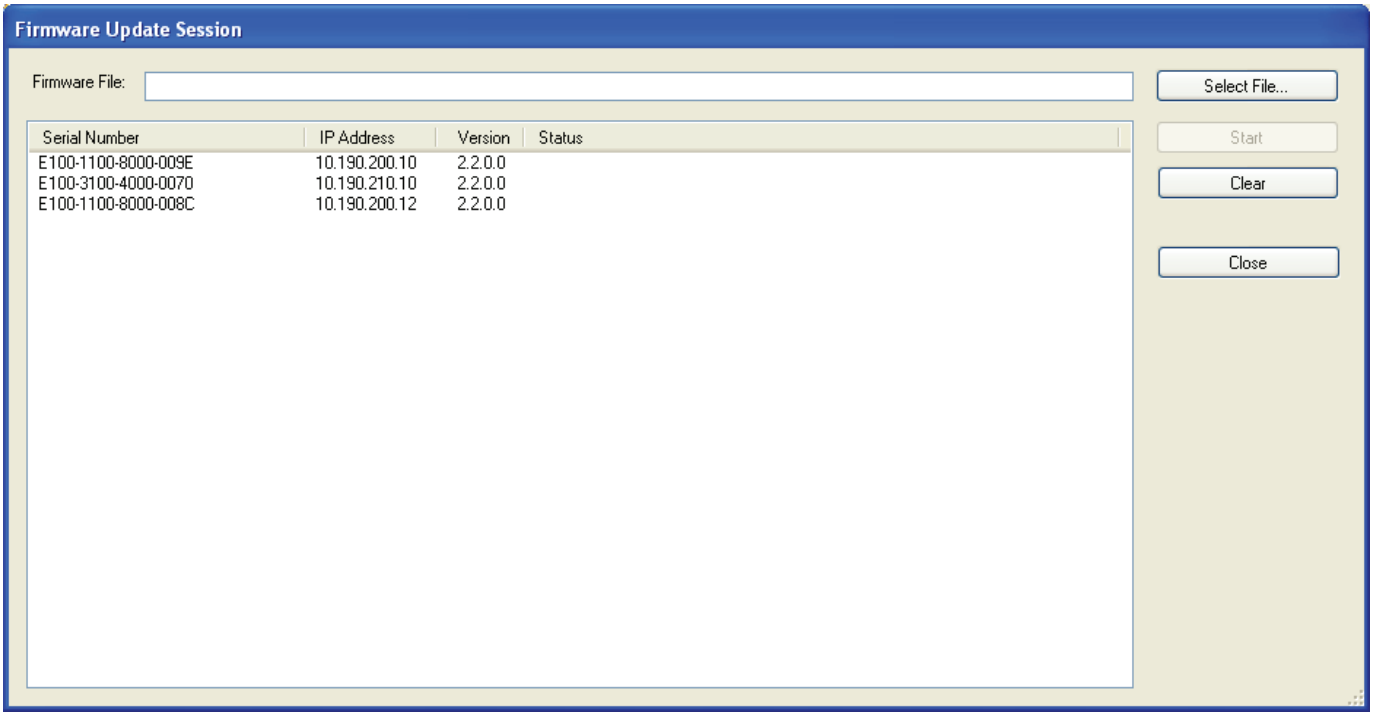
From the MDT, select one or more devices of the same type.


MOOG Discovery Tool
Admin
Help
Device Discove
Search Do
local
Discovery
Networks
192.168.65.173 (Local Area Connec
Tools
Serial Number / MAC Addre...
IP Address
Type
Versi...
Video
Audio
I/O
Serial Port
E100-1100-8000-000B 10.190.200.13 ION-E100 2.2.0.0 In: 1 Out: 0 In: 1 Out: 1 In: 2 Out: 1 1
E100-1100-8000-009E 10.190.200.10 ION-E100 2.2.0.0 In: 1 Out: 0 In: 1 Out: 1 In: 2 Out: 1 1
E100-3100-4000-0070 10.190.210.10 ION-E100 2.2.0.0 In: 1 Out: 0 In: 1 Out: 1 In: 2 Out: 1 1
E100-1100-8000-008C 10.190.200.12 ION-E100 2.2.0.0 In: 1 Out: 0 In: 1 Out: 1 In: 2 Out: 1 1
0000-0022-CB00-2FF4 169.254.48.191 ION-E1600 0.1.2.3 In: 0 Out: 0 In: 0 Out: 0 In: 0 Out: 0 2
0000-0022-CB00-3012 10.190.200.40 ION-E1600 2.1.0.1 In: 16 Out: 0 In: 4 Out: 4 In: 16 Out: 4 2
0000-0022-CB00-2FFE 10.190.200.41 ION-E1600 2.2.0.0 In: 16 Out: 0 In: 4 Out: 4 In: 16 Out: 4 2
0000-0022-CB00-139E 10.190.210.40 ION-E1600 2.2.0.0 In: 16 Out: 0 In: 4 Out: 4 In: 16 Out: 4 2
In: = Input Out: = Output

By using the right mouse button on the selected devices, choose the “Firmware Update” menu option.



To start a firmware update session, choose the ".iof" file corresponding to the new firmware by clicking to the "Select File …" button. Once selected, click to the "Start" button.



Once started, the "Firmware Update Session" window shows the progress of the firmware update. This window can be closed at any moment without losing the current session.

If closed, the progress of the current session can be followed by reopening the “Firmware Update Session” window by clicking the button from the “Tools” toolbar.

Once done, clear the current session from the “Firmware Update Session” window and restart a new session if needed.

7.0.0 Point to Point Connections

Point-to-point connections between an Moog EXO Camera and an Decoder can be configured using the device’s web application.

In the Moog EXO web application, in the ***Configuration*** section, go to the ***Video In*** tab. Scroll down all the way to the bottom of the configuration page. The last 3 sections are named ***Point to Point 1, 2*** and ***3***.

Here’s a quick overview of the settings available for a connection:

- Enabled: Indicates whether this connection is to be used.
- Description: Free-form user description of the connection, not used by the device.
- Encoder: Indicates which video feed is to be sent over the point-to-point connection. Possible values include «Primary H.264 » and «Secondary H.264». These values refer to the encoders configured in previous sections of the same web page.
- Destination IP: Address where to send the video. This is usually the address of an Decoder. The destination can also be a multicast group address. DNS names are not yet supported, only IP addresses.
- Destination Port: Network port where to send the video. This value must match the port value in the Decoder.

Once all the settings have been set, click on ***Save*** at the bottom of the page to apply them. The Moog EXO Camera then creates or updates the connection as needed.

8.0.0 Troubleshooting Guide

- Device does not seem to boot-up
  - Verify that a 24Vac power supply is connected to the device.
  - When a valid power source is detected, the status Pan / Tilt LED, power will light up GREEN.
- Cannot discover the device or communicate via the network
  - Before the device can be discovered, the status LED must be lit GREEN as this indicates ready state of the device.
  - Make sure you have connected the device to your network.
  - Dynamic discovery of the Moog Camera requires multicast networking to be supported by your network and switch equipment. (Bonjour protocol)